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DAY CARE RESOURCES


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Publications

DAY CARE:
RESOURCES FOR DECISIONS

Edith H. Grotberg, Ph.D., Editor

OFFICE OF ECONOMIC OPPORTUNITY
OFFICE OF PLANNING,
RESEARCH AND EVALUATION, PRE/R

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FOREWORD

J. McVicker Hunt

I am also requesting authority, as part of the new system, to provide child care for the 450,000 children of the 150,000 current welfare recipients to be trained.

The child care I propose is more than custodial. This administration is committed to a new emphasis on child development in the first five years of life. The day care that would be part of this plan would be of a quality that will help in the development of the child and provide for his health and safety, and would break the poverty cycle for this new generation. (President Richard M. Nixon)*

The federal government of the United States is in the process of making a decision fraught with substantial possibilities for damage or benefit to the coming generation and to the future of the institution of the family. The Nixon Administration has proposed long needed reform in the system known as "Public Welfare." The reform embodied in the Family Assistance Act of 1970 (H.R. 16311) aims to correct the obvious defects of the old system of Aid to Families with Dependent Children. One provision provides for eligibility for federal assistance on the basis of low income alone. Another provision endeavors to encourage rather than discourage the incentive to work by allowing those eligible to keep a substantial share of wages from their work. Those eligible are also required to register for and accept work or training for work in order to receive the benefits, although these stipulations do not apply to mothers with children under six years of age. This provision includes federal support for Day Care of the children of parents receiving assistance. Despite the words of President Nixon, the debate continues as to whether this Day Care will be essentially custodial or will have a strong education, mental health, and family fostering component. A variety of factors, including the increasing participation of women in the world of work, suggests that a revolution in child-rearing is very likely. Federal support of Day Care would encourage this revolution; thus, the nature of the Day Care fostered carries with it tremendous implications for the quality of the next generation and for the future of the family.

Federal support for Day Care of young children has a history, but it has never existed on such a scale as that now contemplated--a scale which is sufficient to influence child-rearing and family life in America. Federal support for the Day Care of young children came into being in 1933 when President Franklin Roosevelt persuaded the Congress to authorize emergency nursery schools to provide work for adults on relief and to serve children of families with inadequate incomes. This concern has since taken various forms, for various purposes. In 1935, Title V of the Social Security Act authorized both grants-in-aid to the Public Welfare agencies of the states for child services which included Day Care and grants for research and Day Care.

* Family Assistance Plan, August 11, 1969. In: The New Federalism: Addresses and Statements. Office of the President, p. 26.

In 1936, Congress earmarked \$6,000,000 of the funds appropriated for the Works Progress Administration for Day Care in order to provide jobs for women. At the peak of this program, approximately 75,000 children were served in 1,900 of these depression-instigated nursery schools. During this same year, the Farm Security Administration built Day Care centers for the children of migratory farm workers. In 1937, the Federal Housing Act was amended to permit loans for community facilities which included Day Care. In 1941, the Children's Bureau and the Office of Education organized a Joint Planning Board to provide child care services for mothers employed in the industrial efforts of World War II, and in 1943, the Lanham Act provided \$51,000,000 for 3,100 local Day Care centers for the children of mothers employed in the war effort. When such federal funding was no longer available in 1946, almost all of these Day Care centers closed. By 1959, approximately five times as many women were working as in 1940; however, according to a survey conducted by the Children's Bureau and the Women's Bureau, Day Care was available for only 2.4% of working mothers in 1959. As a consequence, in 1962, Title IV-B, an amendment of the Social Security Act, provided for child welfare services that included Day Care. The initial appropriation of \$400,000 grew to \$6,000,000 in 1969. Thus, although federal support for Day Care is not new, the amount of this support has been too limited to have any appreciable effect upon the institution of the family or on child-rearing customs.

In Project Head Start, inaugurated in 1964 under the broad authority of the Economic Opportunity Act, the federal government recognized a responsibility for the inequalities of opportunity among pre-school children. Implicitly recognizing that many of the children of the poor lack the opportunities to develop which are taken for granted in a majority of the middle class families, Project Head Start initially mounted an eight week part-day program of nursery schooling in order to compensate children of the poor for opportunities their families could not provide. When it became evident that such programs failed to raise appreciably the achievement of those children of the poor who participated, the effort was extended to full-day, year-round nursery schooling. Thus, in 1970, the budget for Project Head Start was \$338,000,000, of which \$214,300,000 was earmarked for full-year programs. The summer programs have served approximately 450,000 children, the full-year programs, approximately 213,000. In 1967, moreover, Project Head Start was extended up the age scale in the Follow Through Program and down the age scale into a number of Parent and Child Centers. This latter extension was designed to cover a variety of human needs, and emphasis was placed on involving parents in a more educational form of child-rearing for their pre-school children under three years of age. An appropriation of \$5.6 million was made for these Parent Child Centers which serve some 3,600 families. Thus far, the federal government has shown substantially greater concern, measured in terms of dollars of support, for early childhood education than for Day Care as such.

The amounts of money mentioned in the various versions of the Family Assistance Act of 1970 for support of Day Care approached twice the budget for Head Start. Moreover, in 1969, the Congress amended the Taft-Hartley Labor-Management Relations Act to permit employers and unions to set up jointly administered funds for Day Care centers for children of the families above the poverty line. Such funding combined with various movements promoting social change, such as the Women's Liberation Movement, promises to have a substantial impact on both child-rearing practices and the institution of the

family.

Presently, no one can state with certainty what the impact might be of extensive federal funding for Day Care. We do know, however, that many problems are inherent in such a massive undertaking, particularly in light of the limited knowledge we have on how best to foster the development of the full potential of children. It remains clear that investigation closely linked to practice in Day Care is still required. Further, the very pluralism of American society requires a diversity of Day Care arrangements if we are to accommodate the interests and needs of parents and children with different social and ethnic backgrounds. This diversity poses problems without ready made solutions. These are but a few of the problems which federal planners need to consider. And in such considerations, planners must face the perennial problems that arise in establishing any new program, namely, the danger of establishing a rigid, bureaucratic hierarchy, the dangers of professional snobishness, and the dangers of continuing indefinitely a Day Care program based on the beliefs comprising the knowledge of the 1970's. The problems, dangers and limits of knowledge need to be recognized from the beginning so that information can be obtained that will permit both the recognition of specific difficulties and their correction as rapidly as possible.

PREFACE

Edith Groberg

The American people support research and development efforts as adjuncts to program planning in the belief that such efforts contribute to more effective programs. Information and knowledge emerging from research and development are expected to be applied to the improvement and/or modification of ongoing programs or indeed to formulate new programs. The American people also support research efforts which are not necessarily intended to provide knowledge and information for program purposes, but are expected to add to the general pool of knowledge in a field. This enlarged pool may or may not be drawn on for program purposes.

This nation, like other nations, supports extensive efforts in many fields of research and development. We, however, are unique in supporting such efforts in the field of early childhood. Virtually no research information on early childhood except at a descriptive level is available from other nations, and even the descriptive material is usually from informal observations. Programmatic decisions, such as those for care of young children, tend to be made on basis of experience rather than research evidence. However, European countries have many more years of experience than we do with publicly supported Day Care centers for children of working parents; their experiences should be helpful to us as we plan Day Care programs and as we design related research. From the European experience, many useful hypotheses may be derived for our researchers as well as useful ideas for programs.

While we support research efforts in this country, we have not been too successful in coordinating research results with program activities. This fact is especially obvious in the early childhood field. Some programs have indeed emerged from research and development activities, but too often the obstacles to coordinating research evidence with program planning have seemed insurmountable. There is an increasing awareness, however, that programs must utilize and apply research knowledge and that researchers may help answer questions pertinent to program efforts. The nation seems willing to support these kinds of activities and, as a result, the coordination of research and program efforts may be more imminent.

This volume is an attempt to help the coordination of research and program efforts by providing a state of the art concerning both research and program. In many instances, as will be seen, the gap between research and program is great and in other instances small. For example, programmatic concerns are often too pressing in terms of national needs to wait for research findings. Head Start, to illustrate, was a program before some of the relevant research questions had even been asked. Questions like "What kinds of language programs are appropriate for Head Start children?" or "What kinds of parent involvement enhance the development of children?" were raised after or concurrent with the launching of the program.

Research findings now available from Head Start, as well as other sources of research information on child development, are significant for many aspects of Day Care. These broader findings are contained in this volume, and Day Care should benefit greatly from the available knowledge.

However, there are limitations to the research and program efforts to date, as well as areas of research and program development not yet dealt with adequately, which have implications for Day Care. These limitations are frequently alluded to in the various chapters of this volume. Nevertheless, it should be helpful to pinpoint them here and to pose research and program questions appropriate for Day Care.

One limitation of present research and program efforts derives from the fact that these efforts have concentrated heavily on low income families. The book reflects this fact chapter after chapter. Such an emphasis is not entirely inappropriate however, since very likely the largest single group of Day Care users will be low income families. And to the degree that children from these families are found to have special needs to enhance development, such research information is helpful. But Day Care also may be concerned with other income level families. Families may be able to pay fees to use the Day Care services provided as a result of Federal legislation in which case the population base of users will be broadened. We have little research information or indeed program information on the effects of socioeconomic mix. Yet such a mix may well result from providing services for a broader user base. A small amount of research describes and analyzes socioeconomic mix where this phenomenon happened by chance, but the research stopped at this point rather than going on to pursue methods for promoting the growth and experiences of children in this particular circumstance. In other words, "How can we use a socioeconomic mix to enhance the development of children?" This will be an important question for researchers.

In addition to the problem of socioeconomic mix, there is the question of ethnic and cultural mix. Many members of ethnic groups are strongly pressing for their right to preserve their ethnic identity and they wish to have Day Care programs that will assure such identity. Here research can offer little that is constructive; it can provide only the limited evidence that minority ethnic groups are often handicapped by present programs unless special provision is made to recognize language, cultural, and behavioral differences of these groups. We do not know what either ethnic mix or segregation of one group from another does to enhance or retard child development. Should children, for example, remain in ethno-centered Day Care programs until they reach an age where they can benefit from multi-ethnic grouping? Or, is child development enhanced more by establishing multi-ethnic grouping from the start? These questions need answering.

Another limitation to available research and program information is the concentration on children between the ages of three and six. Again, the Head Start model and Head Start support tended to restrict research and program efforts to this age group. The authors of the present volume have attempted to compensate for this by drawing from the broad research pool, as well as from their own extensive and significant efforts, and by suggesting ways to apply the knowledge to Day Care. They are fully aware, however, that they are interpolating and that new research and program questions need attention.

Day Care is concerned with children from infancy to perhaps the age of 13 or 14, depending on the availability of services. For the older children Day Care may need to provide little more than recreational or study opportunities or may, indeed, be a haven for these children, as it is in Denmark (see

Chapter I, Section II). However, for children, usually preschoolers, who stay in Day Care settings all day, many more provisions are needed and we have little research about the effects of Day Care on children. This lack of information is particularly true for children under the age of three. Available information describes Day Care which is university-based and which is staffed by highly competent people on a very small child-adult ratio, with a very high per child cost. Under these conditions no negative effects on the infants and children under three have been found when comparing them to children at home with their mothers. But even in these studies sufficient time has not elapsed to determine long-range effects of the Day Care experience.

Day Care poses some new questions, then, which need answering. These include: (1) What is the effect on children at different ages of varying lengths of separation time from parents? (2) What is the effect on children of the wider age range of Day Care users? and (3) What is the long-range effect of Day Care on children?

It will be necessary to design longitudinal studies to study the long-range effects of Day Care on children at different ages. Separation time from parents, for example, may not seem to adversely affect children in their early years, but their adolescent development may be indeed impaired by early separation experiences. Mixing children of different ages may benefit both older and younger children as they are encouraged to interact. This age mix may well prove more beneficial to both immediate and long-range child development than the current practice of grouping by chronological age. The present volume does not pose these questions. They emerge logically as one reads and integrates the chapters.

Another problem closely related to the previous ones concerns the limitation of research and program knowledge about parent participation. The knowledge that does exist derives primarily from Head Start, where parent participation is built into the program. Little is known about parent involvement in programs for younger children and virtually nothing about parent involvement in Day Care. Robert Hess presents (Chapter 9) the available information but draws heavily from studies that either involve Head Start aged children or from comparative studies of parent-child interactions from various socioeconomic groups.

While most federal legislation concerned with programs for young children, e.g., Head Start, Follow Through, Parent-Child Centers, requires parent involvement of some kind, the fact remains that Day Care will be providing services to children whose parents are either working or in training and will be away most of the day. This fact raises another research and program question, "What is the effect on children of varying kinds of parent involvement and varying lengths of time of such involvement?"

Another problem needing attention concerns the time devoted each day to various activities. How much time and at what times are educational curricula used? What combination of structured and non-structured activities should be employed? What is an effective balance of activities and events and how does this differ for different age groups? The whole problem of scheduling is involved, and it may well be that existing schedules, such as in Parent-Child Centers and Head Start, are inappropriate.

Then, what about settings? Most current early childhood programs are set either in a public school, a special community facility, or in a church. What happens when Day Care is set up at an industrial site? Even though this nation provided Day Care in such settings at various points in history, no research was conducted to determine the effects of the setting on children. So another research and program question arises: "What is the effect on children of an industrial setting?" If we wish to include, as a research question, settings that are home based or family based (see Chapter 15, Delivery Systems by Irving Lazar), we may broaden the original question to: "What are the effects on children of different ages in different settings?" Denmark, for example, uses homes exclusively as Day Care settings for "high risk" children, those who have health, adjustment, or developmental problems. Is it advisable to establish some criteria for selecting appropriate settings? Such criteria may be the result of research knowledge and program experience.

Areas which have received no research attention even in the current federally supported early childhood programs include: (1) training; (2) health services; and (3) social services. The Chapters concerned with these program adjuncts (14, 11 and 13 respectively) reflect the lack of research and tend to limit themselves to describing by logical construct what seems to be or what ought to be a good training program, health service organization, or social service support. Research is greatly needed in these areas so that we learn how to train personnel and provide supportive services which are most promising for child development.

Training, however, may well be the most critical of these areas needing immediate research attention. Large portions of this volume are devoted to programs for children (PART II) and to interaction factors of adults with children (PART III). Most of the information in these portions includes very little or nothing on how to train an adult to foster desirable development in children. Another way of expressing this problem is in the form of a question: "How do you train a change agent to bring about measurable development in children?" Training programs neither vary training techniques for comparison purposes nor do they do much with follow-up to determine if children benefit from adults who have had one kind of training as compared to another kind. Several studies describe desirable characteristics in adults working with children, but little on how to develop or train for these characteristics.

We have only recently addressed ourselves to the problem of nutrition as it relates to physical development and learning behavior. The implications of the research have not yet been fully grasped and it is to Herbert Birch's credit that he presents so fully the current status of nutrition research and states the implications for Day Care.

Day Care is not new in the United States. What is new is the present commitment to support research and program development efforts as well as evaluation, and to apply the information gleaned from these efforts to Day Care.

The authors of the separate Chapters in this volume represent not only outstanding research and program authorities but in most instances have combined in their own experiences research activities with program development. They know what goes on in the field; they know the problems confronting programs; and they are sensitive to the critical research questions which may

provide answers or partial solutions to the problems.

The information these authors provide may be regarded as resources for decision making by persons concerned with research or program planning for Day Care. It is hoped that a new kind of research effort will emerge which may be termed "within-program research." Much research to date has not been planned to answer questions pertinent to program needs. Perhaps developing program-based research designs will make the findings more relevant to the pressing questions.

The organization of the book may help in decision making by separating out the different components of Day Care for focused attention:

PART I presents information on Day Care experiences in other countries and in America. Iris Rotberg assumed responsibility for coordinating the portions describing Day Care programs in other lands while Irving Lazar and Nebby Rosenberg contributed the historical sketch of Day Care in America. This part, then, provides some background as well as a broad consideration of Day Care settings.

PART II examines the program curricula that most directly affect the cognitive and social-emotional development of children. Jerome Bruner gives an overview and integration of the components of program curricula. Irving Sigel, *et al.*, focus on the significant factors in the social-emotional development of young children and Jerry Kagan presents pertinent information on cognitive stimulation. Courtney Cazden, *et al.*, are concerned with language programs as part of the curricula. Jacob Gewirtz describes a particular learning theory he finds effective with young children and also presents a careful treatment of motivation theory.

PART III focuses on interaction factors between adults and children which promote child development. Kuno Beller confines his presentation to caregiver-child interaction while Robert Hess concentrates on the parent-child interaction and community involvement.

In PART IV on supportive services, Ann Peters discusses health, Herbert Birch nutrition, and Enolia Archinard, *et al.*, social services. Models are presented that describe how to provide these services. The chapter on nutrition, as stated above, provides research information in addition to programmatic implications.

PART V discusses training and delivery systems. Guinevere Chambers describes a good program model she developed. Irving Lazar describes various kinds of delivery systems for making Day Care programs feasible both in terms of services and cost.

PART VI presents important approaches to evaluation. Francis Palmer, *et al.*, separate summative evaluation from formative evaluation and suggest ways for Day Care programs to assess their effectiveness.

We are deeply grateful for the time and effort so graciously expended by the authors and those who worked with them in preparing the chapters. We appreciate the contributions and advice of the Deans of Early Childhood, Jerome Bruner and Joseph McV. Hunt. We are grateful to Kathy Lazar for her fine indexing and to Margaret Parker for her endless hours of typing. And, then, special thanks go to Barbara Sowder for aiding and abetting the authors, for responding to repeated crises, and for generally providing assistance in the development of the volume.

CONTRIBUTORS

Evelyn Aabel

Pediatric Nurse Practitioner, Frank Porter Graham Child Development Center,
University of North Carolina, Chapel Hill, North Carolina

Enolia B. Archinard, M.A., M.S.W.

Professor of Social Work, Tulane University; Director of Parent Child Center,
New Orleans, Louisiana

Joan C. Baratz, Ph.D.

Project Director, Education Study Center, Washington, D.C.

Leonard Beckum, M.A.

Research Assistant, Graduate School of Education, Stanford University,
Stanford, California

E. Kuno Beller, Ph.D.

Professor of Psychology and Director of Developmental Research Laboratory,
Temple University, Philadelphia, Pennsylvania

Herbert G. Birch, M.D., Ph.D.

Professor of Pediatrics, Albert Einstein College of Medicine, Bronx, New York

Marianne Block, B.A.

Graduate School of Education, Stanford University, Stanford, California

Jerome Bruner, Ph.D.

Professor of Psychology and Director of The Center for Cognitive Studies,
Harvard University, Cambridge, Massachusetts

Courtney B. Cazden, Ph.D.

Associate Professor of Education, Harvard University, Cambridge, Massachusetts

Guinevere S. Chambers, Ph.D.

Professor of Psychology and Chairman of Department of Child Development and
Child Care, School of Health Related Professions, University of Pittsburgh,
Pittsburgh, Pennsylvania

Joan Costello, Ph.D.

Assistant Professor of Psychology, Yale University, New Haven, Connecticut

William B. Forsyth, M.D.

Chairman of the Committee on the Infant and Preschool Child, American Academy
of Pediatrics, Rochester, New York

Hava Bonné Gewirtz, Ph.D.

Department of Psychology, Montgomery College, Rockville, Maryland

Jacob L. Gewirtz, Ph.D.

Chief, Section on Early Learning and Development, National Institute of Mental
Health, Bethesda, Maryland

- Joseph Glick, Ph.D.
Associate Professor of Psychology, City University of New York, New York City,
New York
- Edith H. Grotberg, Ph.D.
Research Coordinator, Office of Planning, Research and Evaluation, PRE/R,
Office of Economic Opportunity, Washington, D.C.
- Robert D. Hess, Ph.D.
Professor of Education and Psychology, School of Education, Stanford University,
Stanford, California
- Emory Hill, M.A.
Research Assistant, State University of New York at Buffalo, Buffalo, New York
- Joseph McVicker Hunt, Ph.D.
Professor of Psychology and Elementary Education, University of Illinois,
Urbana, Illinois
- Joseph P. Jackson, Ph.D.
Assistant Professor of Psychology, Erie Community College, Buffalo, New York
- Jerome Kagan, Ph.D.
Professor of Human Development, Harvard University, Cambridge, Massachusetts
- Ruby Takanishi Knowles, M.A.
Research Assistant, Graduate School of Education, Stanford University,
Stanford, California
- William Labov, Ph.D.
Professor of Linguistics and Psychology, University of Pennsylvania,
Philadelphia, Pennsylvania
- Dorothy Largay, B.A.
Graduate School of Education, Stanford University, Stanford, California
- Marjorie Land
Director of the Operational Staff, Frank Porter Graham Development Center,
University of North Carolina, Chapel Hill, North Carolina
- Irving Lazar, Ph.D.
Director of Child Development, Appalachian Regional Commission, Washington, D.C.
- Gerald S. Lesser, Ph.D.
Bigelow Professor of Education and Developmental Psychology and Director of
Human Development, Harvard University, Cambridge, Massachusetts; Chairman
of Board of Advisors, Children's Television Workshop, New York City, New York
- Frank A. Loda, M.D.
Medical Director of the Frank Porter Graham Child Development Center,
University of North Carolina, Chapel Hill, North Carolina
- Laura L. McCall, M.S.W.
Doctoral Candidate, National Catholic University, Washington, D.C.

Dale R. Meers, Child Psychoanalyst
Department of Psychiatry, Children's Hospital of the District of Columbia;
Baltimore-District of Columbia Institute for Psychoanalysis, Washington, D.C.

Ruth Miller, B.A.
Graduate School of Education, Stanford University, Stanford, California

Francis H. Palmer, Ph.D.
Provost for Educational Research Development, State University of New York
at Stony Brook, Stony Brook, New York

Ann DeHuff Peters, M.D.
Day Care Coordinator, Children's Hospital and Health Center, San Diego, California

Mae E. Rosenberg
Sociologist, Education Policy Research Center, Stanford Research Institute
Menlo Park, California

June Sale, M.S.W.
Director, Community Family Day Care Project, Pacific Oaks College, Pasadena,
California

John S. Schowalter, M.D.
Associate Professor of Pediatrics and Psychiatry, Yale Child Study Center,
Yale University, New Haven, Connecticut

Ada Secrist, Ph.D.
Assistant Project Director, Early Childhood Education Project, State University
of New York at Buffalo, Buffalo, New York

Irving E. Sigel, Ph.D.
Professor of Psychology and Director of Early Childhood Education Project,
State University of New York at Buffalo, Buffalo, New York

Albert J. Solnit, M.D.
Professor of Child Psychiatry and Director of the Yale Child Study Center,
Yale University, New Haven, Connecticut

Raymond Starr, Ph.D.
Research Associate, Merrill-Palmer Institute, Detroit, Michigan

Erika E. Streuer
Special Assistant for Public Affairs, Day Care and Child Development Council
of America, Inc., Washington, D.C.

Mary Miles Wagner, Ph.D.
Department of Psychology, University of California at Los Angeles, Los Angeles,
California

Marsden G. Wagner, M.D.
Associate Clinical Professor, Pediatrics and Public Health, University of
California at Los Angeles, Los Angeles, California

Harry Wasserman, D.S.W.
Assistant Professor, School of Social Welfare, University of California at
Los Angeles, Los Angeles, California

PART I

ORIENTATIONS TO DAY CARE

CHAPTER 1

DAY CARE SETTINGS: SOCIAL, CULTURAL AND ANTHROPOLOGICAL CONSIDERATIONS

We have noted that a broad based system of government Day Care raises a number of issues concerning the behavioral and social effects of such a system. A related question concerns the degree to which we can anticipate these effects by a study of experiences in other countries. The following discussion describes some of the apparent successes and failures of European and Israeli programs, as well as difficulties in generalizing from Day Care experiences in these countries to particular problems in the United States. Differences between the social conditions and philosophic goals in the United States and in the other countries studied are of particular concern. Any attempt to draw conclusions from the experience outside the United States must consider the social and economic setting in which the child care occurred, child-rearing patterns, status and availability of caregivers, etc. The difficulty of considering these factors is compounded by the fact that few group care programs have been evaluated in terms of their behavioral and social effects. There is often little observational or experimental data here or elsewhere describing the impact of group care on child development.

Moreover, expansion of Day Care facilities also underlines the need to insure against the potential hazards of a broad-based group care program. It is essential that programs provide an approach compatible with cognitive and emotional development, that they provide the diversity required to meet the needs and desires of a number of different groups, and that they insure the meaningful participation of low income families to whom the programs, by necessity, would be primarily directed. Potential adverse effects hopefully can be minimized if Day Care programs are carefully designed and develop gradually enough to insure adequate resources and concomitant evaluation of their impact on the emotional and cognitive development of children.

Day Care must also be considered in the context of other potential government programs, such as income maintenance, in order to assess the relative economic and social effects of the programs on the family and community, as well as their impact on child development. The reader may derive some implications of these and related issues in the four sections which follow.

Section A

INTERNATIONAL DAY CARE: A SELECTIVE REVIEW AND PSYCHOANALYTIC CRITIQUE*

Dale R. Meers

INTRODUCTION

Historically, social concern for the welfare of children is interrelated with the tenuous, often tortuous evolution of scientific knowledge of child development. The relationship is inevitably reciprocal. Social conscience has sometimes pushed the scientist where he has been hesitant to venture. Alternatively, scientific documentation has been the gadfly of social conscience, though society often has proven resistantly imperturbable where scientific clarity has presented a too discomforting mirror to social indifference.

Currently in the United States, social concern is reflected in legislative considerations of the special fate of children--often those of minority groups--whose home circumstances or natural parents have suffered so drastically that the young are not afforded optimal conditions for normal, healthy maturation of body and mind. The progression of social responsibility reflects, in some measure, advances in scientific comprehension of the fundamental importance of adequate nurture in the earliest years of childhood.

For example, just as the publicly maintained poorhouses once represented a significant advance in social commitments to child welfare, so the ensuing development of congregate child care institutions were a corrective response to limitations of the poorhouse. Once established, the congregate institution remained, for want of better solutions, and with it came the unforeseen consequences of hygienic institutionalization, particularly the continuous tragedy of marasmatic deaths of infants and the pseudo-defectiveness of older children--outcomes that become the subjects of extended international research.

* This paper has condensed, updated and modified an earlier, more extended version of "Group Care of Infants in Other Countries," (in) Early Child Care. The condensation and reproduction of parts of the earlier paper have been made possible by permission of Atherton Press, Inc. copyright (c) 1968 Atherton Press, Inc., New York. All rights reserved. Particular thanks are due to my previous co-author, Allen D. Marans for his scholarship and personal study of our subject in France, Greece and Israel. Responsibility for this condensation and updating, particularly for the considerable modification of earlier conclusions as to the Soviet Union's programs, remains necessarily, with this author. Acknowledgements of the many dedicated researchers and administrators whose international cooperation have made this paper possible exceed the formalities of a footnote and are separately appended.

- 1 Marasmus, from the Greek "to waste away." Ribble (1944, p. 634) noted that five decades ago, marasmus/infantile debility was responsible for nearly half of the infant mortality rate. While marasmatic deaths are rare today, other psycho-biological failures of infancy include developmental dwarfism (Silver and Finkelstein, 1967) and the "failure to thrive" babies. Current research is suggestive that deficiencies in growth hormone and ACTH may be significantly modified by correction of emotionally disturbed environments (Powell, et al. 1967).

Consequently, by the 1920's a quiet social revolution came to pass in the federal state support of family nurture via foster home and adoption services that emptied the congregate institutions of the U.S. As appears true in all modern, industrial nations, however, social values of "the family" appear to dissipate with increasing options for economic and geographic mobility. With smaller families for the upwardly mobile, and decreasing community support for the direction of child activities, the qualitative base for foster home care in the U.S. now appears less than adequate. The "racial" prejudices of the nation, moreover, have further taxed the program for foster care. Massive migrations of our Negro population into urban visibility have simultaneously brought a belated concern for fragmented lives, a situation that was earlier ignored.

The inequities of foster home care have hit the Black child hardest, and we have seen his disadvantage exacerbated by his grossly disproportionate placement in our returning congregate institutions. There are parallel concerns with the stigmata suffered by the welfare-mother, and current social policy considerations suggest a new synthesis in which child Day Care might simultaneously diminish the need for foster/institutional placements and also permit the training of mothers for employment outside the home. Nationally, the over-sell of the Head Start Day Care type programs has been accepted by the public with convictions that are not shared by the scientific community that sponsored Head Start. For those families where there is no question of the adequacy of home life, the matter has been complicated further by the position statements of the American Educational Association on the presumed salutary qualities of ever-earlier education, and these appear to have escalated popular interests in Day Care.

Popularized reports of the reputed virtues of international child care programs, particularly those of the U.S.S.R. and the Kibbutzim of Israel, appear as major contributions to present U.S. legislative proposals for national support of Day Care. One may speculate that the anomic phenomenon of our urban depersonalization has added to the romantic aura that surrounds the reputed virtues of the Kibbutzim. The extraordinary advances of Soviet atomic and space technology appear popularly, if obscurely, linked to that nation's innovations in education--as though technological advances were ultimately derivative of the early child care programs. In the absence of extended documentation, which is essential to scientific assessment of the effects of programs, imagination has colluded with scant observations, and some western observers have concluded that the Day Care of other nations is a singular blessing.

With such preconceptions, this author began his research explorations in 1964.² Review of the scant available literature led, subsequently, to reports of the National Academy of Science and then to correspondence with a number of prominent research and administrative directors of child care programs in the U.S.S.R., Hungary, German Democratic Republic (East Germany), Czechoslovakia, Greece, Israel and France. The study of these particular countries was a function of available literature, the responsiveness of the countries' research communities, and the character of particular types of child care programs. Professional visits were made to selected child

The Committee on Day Care for the Maternal and Child Health Section of the American Public Health Association and the National Institute of Mental Health provided initial encouragement and sustenance for this research.

care centers in each of these countries, other than the U.S.S.R., by Dr. Allen Marans in 1963 and by this author in 1965. Both tours included personal observations of centers, extended discussions and consultation with policy makers, administrative directors and child care staff. Because of the apparent importance of the Soviet Union's programs, and increasing uncertainty of their scope and purpose, support was requested and provided by the U.S. Public Health Service, under the U.S.-U.S.S.R. scientific exchange program, for this author and a colleague³ to study in Moscow, Leningrad and Reiga (1967).

No claim is made here that the observations in these several countries provide some representative sampling, nor is it suggested that programs and centers are necessarily similar. Indeed, as a first generalization, one may note that greater differences appear to exist between some child care centers in the same country than between the best of each country. Extreme dissimilarities in any one country, however, appear as historical accidents in which older facilities have been bypassed because budget priorities have been given to the development of new improved centers. In the effort to highlight the characteristics and directions that seem most relevant to U.S. concerns, many differences of quality care are ignored here. Since the U.S. has little to learn from inadequate foreign centers, such facilities are discussed only where it seems important to illustrate particular programmatic or policy problems. The worst of U.S. urban Day Care occasionally may be equaled, but not easily exceeded, by the worst of those observed abroad by this author; however, the intent here is to studiously avoid any implication of invidious comparisons of the U.S. with other nations' programs. The following discussion is predominantly concerned with the best of international centers and technical management such that the ensuing critical evaluation relates to those special problems inherent in even the best of Day Care programs. Particular types of institutional experience and research is directly relevant to Day Care for the very young. Accordingly, this paper also makes selective reference to problems of "institutionalization" and "hospitalism."

The subject of child care cannot be readily separated from the philosophical/ideological commitments of the several countries reviewed. The collectivistic orientation of Kibbutzim child care is dramatically different from that of Greece or France, and surprisingly different from official policies of the Soviet Union. Philosophic views are inherently reflected, purposefully or unwittingly, in the social/economic priorities that underpin funding for childcare staff, physical facilities, resources for the children, etc. Emphasis here is given to the programs of communist countries because their extended experience covers both decades and millions of children in Day Care. Administratively, their programs are not unlike those seemingly envisioned by U.S. legislation, i.e., with policy funding and standards nationally established yet with considerable regional and local latitude for the administration of the individual centers. The sheer magnitude of existing communist child care programs, which entail a radical departure from the conventions of family nurture, constitutes an extraordinary social experiment (with a fascinating range of scientific implications).

THE SOVIET MODEL AND EAST EUROPEAN ADAPTATIONS

The geographic span that separates the U.S. and the U.S.S.R. is less formidable than the ideological and conceptual distance that must be bridged in scientific dialogue. For Pavlov is to Soviet education, child care and psychiatry as Lyschenko was to agronomy and genetics (e.g., see: Tur, 1954; Barkoczi, 1964; Tardos, 1964). Since Pavlovian conceptions do not entertain the possibility that mental illness can be a consequence of adverse infant and childhood nurture, psychiatric research on the relationship of early Day Care and psychopathological disorders is notable only for its non-existence. During Stalin's life, both social psychiatry and social psychology were politically interdicted, presumably on the rationalization that social is a synonym for class and that, in a classless society, there were no differences to study. Similarly, with the establishment of the Communist state in Czechoslovakia, foster care and adoptions were replaced by state sustained Day Care and residential care for children and research on the complexities of these Czech programs was forbidden at the university level,⁴ but indirectly possible in psychiatric settings.

The difficulties in reviewing Soviet research, such as there is, are compounded by their limited internal budgets for journal publications in the behavioral sciences; literature proves far more available via the East Europeans. The literature review that preceded these field studies began with a series of documents obtained in the U.S.S.R. by members of the President's Panel on Mental Retardation (1964) and the Child Psychiatry Mission to the U.S.S.R. (Lourie, 1962; Report of the Medical Exchange Mission, 1962). Our study was enriched by the translation of Schelovanova and Aksarina's basic text (1960), which had been made available in Russian by Professor Zaporozhets who had consulted in Washington in 1964. Bronfenbrenner's several papers (1963a, 1963b, 1964) were fascinating and we were prepared to see, in East European adaptations of Soviet models of Day Care, a coherent effort in which the state used the Day Care nursery to produce the "new Communist man."

It was a considerable surprise, therefore, to find that East European programs, in 1965, appeared to be not only prosaic but also struggling with such a multitude of organization and administrative problems that it was difficult to perceive anything in the way of nursery centered, conditioning. Self-consciously as aware of their problems as they were proud of their achievements, East European administrators made continued recommendations that one should see the truly successful Day Care centers in the U.S.S.R., where extended experience is matched by optimal funding. In the two years that preceded personal study of the Soviet centers, this author contributed a number of conclusions, from inferential data, as to Soviet programs that have since proved to be singularly erroneous (Meers and Marans, 1968).

We wrote at that time: "In 1965, Khrushchev introduced a nationwide program aimed at the creation of a new Soviet man" (Bronfenbrenner, 1963). To accomplish this objective a major portion of the responsibility for child-rearing was deliberately shifted from the family to the children's collectives, the U.S.S.R. day nursery." (*Ibid*, p. 239). Inherent in this (erroneous)

⁴ The Czech national psychological association, which might have provided research evaluations, was also disbanded.

formulation was the conclusion that the contemporary generation of Soviet parents, having been deprived of a "proper" upbringing, could not be expected to rear this new Soviet man without help from appropriately educated, state-supervised staff. The state thereby purportedly recognized the role of the "upbringer" as the purveyor of the new culture, since mother substitutes were nominally selected and trained to induce the political ideas of the state.

Whatever the political goals of social planners in the East European countries, however, it was clear in 1965 that the extraordinary complexities of staffing and developing massive programs precluded any systematic induction of political-cultural values. Surprised by the absence of ideological implications in programming, this author raised the question repeatedly. As a typical response, Pikler (Budapest) advised that in three decades of close and cooperative working relationships with Soviet child care specialists, she was quite unaware of any such state policy.

During the author's three weeks of study in Moscow, Leningrad and Reiga, there were continuous occasions to discuss Soviet Day Care policy, from the ministerial level, through administrative and research staffs down to the various Day Care centers' personnel. It is clear that the Soviet Union would indeed like to provide the best-of-all-possible worlds for their children, so that their new Soviet man would have every advantage that a modern industrial nation might provide. The status of the Soviet child is considered unique and there is a presumption, not unlike that held in the U.S., that the best is being done for their children. It is humorously suggested that children are the new "upper class" of the classless society. And, indeed, part of the Soviet claim appears merited by the extraordinary priorities and investments that sustain the multiplicity of child care programs.

The Soviet Day Care programs, however, appear anything but revolutionary in their intent. They are designed to provide the type of comprehensive care that has been depicted in the U.S. as "Head Start." The term, in U.S. usage, is a misnomer since our programs, like those of the U.S.S.R., are intended to provide a better start and not an accelerated introduction to intellectual/academic matters. In the vast Soviet federal state, which encompasses disparate nationalities and ethnic peoples, the provision of basic, high-quality health and social services continues as a fundamental problem. The provision of early Day Care has the explicit intent of ensuring the best health and nurture that can be uniformly provided. If there is an unstated, implicit political intent in these programs, this author would conclude that it has to do less with the creation of the ideal communist than with the creation, in the younger generation, of a "national citizen" who is free from regional and ethnocentric biases.

Parenthetically, one should add that the Soviet Day Care centers are hardly oriented to the introduction of reading, writing, and arithmetic at ever younger years. On the contrary, only scant and incidental "educational" material is introduced in the last year of nursery school, and formal education is only started at age seven a year later than in the U.S.

Day Care programs of the East European nations differ most in the intent and rationalizations of their separate cultural, economic and political status. The Hungarian programs evolved from an organic community need to provide for homeless, parentless children who were incidental

victims of the Nazi siege of Budapest. Economic dislocation from western Europe and the attempt to industrialize provided powerful government incentives to adopt and implement Soviet models of Day Care and the frugal conditions of the post war economy provided substantial incentives for mothers to place their children in Day Care and secure work. From meager beginnings in Budapest, Day Care centers were established wherever possible, e.g., in unused factories, and these centers proliferated through the following decades with an express government intent to provide equal and adequate services in rural as well as urban centers.

While pleased with their continued upgrading of building design, staff ratios, etc., Hungarian Day Care of infants under the age of three has been viewed as a regrettable side effect to the necessary employment of mothers and therefore has been considered a program that should be progressively limited and eventually terminated as economic conditions might permit. This conviction appeared to be based less on any question of possible damage or retardation of the children concerned, than on humanitarian responses to the manifest unhappiness that substitute care creates for the small child separated from home and mother (Laslow, 1965).

In East Germany⁵ a different confluence of factors has affected the characteristics of Day Care. Under Communism, a "feminist" movement appears to present a powerful, government-sustained reaction to the residual patriarchal dominance of the old-time German family. Day Care provides not only for children, but also gives women an alternative to the domesticity that has carried a cultural aura of subservience.

East Germany suffered a massive loss of manpower in the war and was further plagued by the succession of Nazi extermination of "liberal" professionals, the postwar exclusion of established pro-Nazis from responsible positions, and the exodus to West Germany. Massive displacement of populations and extended war damage led the country into an austerity program from which it has yet to emerge. Extended efforts to industrialize a previously agrarian area only added to the chronic and severe manpower shortage, adding urgency to the need for the labor of women. The establishment of Day Care centers on a mass scale, however, placed the Day Care programs in direct competition for the already short supply of woman power. With the inception of the programs, it appeared that many of the older and least suitable women, who were unable to find better employment in industry, secured employment in child care. Recruitment, staffing and training continue as major problems.

Czechoslovakia was spared much of the war devastation suffered by Germany and Hungary. Its industrial base and professional population were left relatively intact. Economic reorientation to the East and severe planning/production limits on luxury goods contribute to a continuing austerity and provide strong economic motivations for families to secure a second income through the work of mothers. Government support and encouragement of the use of Day Care has appeared more doctrinaire than economically motivated. The best of Czech Day Care appeared hygienic, sterile and depressing; the worst seemed melancholically, fatalistically sorrowful, Czechoslovakia in transition may reflect severe anomic reactions to the

The German Democratic Republic is not well known in the U.S. by its proper title, and hence is referred to, for purposes of clarity, as East Germany.

enforced and extended readaptations of cultural values to the changed political and economic ways of communism.

THE SCOPE AND COSTS OF COMMUNIST DAY CARE

In 1964, some 10% of the Soviet Union's pre-school child population were cared for in various types of child care facilities; five of seven million children were in (non-residential) nurseries and Kindergartens. Consonant with Zaporozhets' (1964) projections, 1967 estimates (provided in the U.S.S.R.) indicated that 30% of the nation's pre-schoolers were then enrolled, and that the figure was as high as 60% in major Soviet cities. In 1964, Zaporozhets had anticipated that a goal of 100% would be achieved by the 1980s. East European estimates in 1965 approximated those of the U.S.S.R., i.e., some 30% of these nations' children were in Day Care. By 1970, East Germany had between 30% to 45% of under-threes in Day Care, and 51% of the older children in Kindergarten. Schmidt-Kolmer (1970) projected that by the 1980's nearly all of the four to six year olds, and some 50% of the under-threes, would be in Kindergarten/Day Care. Czechoslovakia, in surprising contrast, as a result of governmental policy responses to research evidence of emotional injury to the very young child, has systematically reduced its Day Care for children under three, and current estimates indicate an enrollment of only 12% of these children in 1970 (Langmeier and Matejcek, 1970; Matejcek, 1970).

In the Communist nations, financial support for both capital construction and operational expenses depends upon sponsorship, e.g., of factories, coops, urban micro-units, etc. The state is usually responsible for basic costs. The capitol expenses for Day Care centers in East Germany approximate 11,000 Marks/per child, i.e., about \$2,600 (as an under-estimate based on an official 4.2 rate of exchange). This represents a quarter of a million dollars in construction costs for each prefabricated unit that houses some 100 infants.

Operation budgets of both Czech and East German centers approximate one-quarter to one-third of the earned income of the average working parent, e.g., East German costs are 155 Marks per month per child (Schmidt-Kolmer, 1970) and Czech costs are 526 Crowns per month per child (Matejcek, 1970). Since the East German incomes, as a high estimate, are about 630 Marks per month and Czech incomes are about 1600 Crowns per month, the placement of three children from one family in Day Care would involve operating expenses equal to the income of a working mother. The costs to families remain low only because of state subsidization. Bronfenbrenner's estimate that Soviet expenditures equal the total cost of Soviet space exploration appears quite plausible. In the continuing, philosophic commitments of the U.S.S.R., enormous expenses are involved in the construction of rural new-town communities and in the beginning ultra modernization of cities such as Moscow. Planners make use of the "micro-unit," an extended complex of modern, high-rise apartments (prefab) that are relatively self-contained as a neighborhood. These units include shopping, medical, and Day Care centers, plus related schools. Emphasizing the family as the core of the Soviet state, i.e., the child's first "collective" (Makarenko, 1954), Day Care is seen as but one of the adjunctive services provided by the state to sustain the uniqueness of each family.

QUALITATIVE DIFFICULTIES IN COMMUNIST DAY CARE

However philosophical their dedication to the new generation, Communist allocations of salaries and status to the child caregiver are marginal. Moreover, the vast extension of the programs appears to have made recruiting demands that do not permit the quality of staff selection aspired to by planners. Training, subsidized rather liberally by Western standards, aims at a continual upgrading in quality of service (Schmidt-Kolmer, 1970). Yet the self-selection of caregivers usually brings young, unmarried girls or women who cannot obtain better paying industrial employment. In 1965, the child caregiver population had a high mobility rate even after training. This experience is not peculiar to the Communist states, as is indicated by Israeli data showing that only 18% of Kibbutzim caregivers had worked for ten years or more, and that in a single year 28% had left their group of children (Gerson, 1970).

Communist literature tends to idealize the participation of parents, to encourage parents to participate actively with Day Care staff out of a sense of duty to child and country. Options for parents are clearly available for both conferences and staff lectures on child care and the desirability of continuing at home the routines established in the centers (Robinson, 1965). The realities of Communist life do not readily match the idealization of active parental participation. It is a long and arduous day for both working parents and one must question whether the educational options offered are in fact realistic. Informal Soviet humor suggests that Ivan's parents listen to free advice with closed ears.

One criterion of the adequacy of Day Care programs is the degree to which planning and administrative staff make use of them for their own children. While many senior staff appeared to be beyond child-rearing ages, it was notable that this author did not meet any such professionals who had their children in early Day Care nurseries. On the contrary, the few who did discuss this noted their preference to use their incomes to employ someone to care for their children at home.

MULTIPLE AND INTERMITTENT "MOTHERING"

The child caregiver is an employee, and there are prerogatives that follow from that status that are denied to most biological mothers, such as, coffee breaks, sick leave, holidays and the option to leave one's charges if the conditions of work are not sufficiently gratifying. Continuity of care, however, provides two major advantages for the child: (1) his mother will know him with sufficient intimacy so that, in his preverbal months of life, she can understand and alleviate his needs so he will not experience undue pain; and (2) the baby is afforded an option to accommodate to a consistency of care that evokes his continuing interest in and attachment to an emotionally responsive person. It has been this author's experience that nursing staff covertly resist continuity of care of any one or more babies. Indeed it was a common experience, internationally, that caregivers often could not readily identify their children by name and, with babies, did not know with certitude whether each one had been fed. Schmidt-Kolmer (1970), citing a study done in Leipzig, reaffirms experience elsewhere,

namely, that the younger and less active the child in the day nursery, the smaller the amount of attention he received.

Education, as Schelovanova and Aksarina (1960) have commented, begins in the earliest of life experiences as the child grows in his mother's arms. Multiple mothering, all too frequently, provides an uncoordinated octopus. The multiplicity of caregivers, their overlapping of shifts, their replaceability for illness or holidays, their departures for other employment, all leave the very young child accommodating first to one and then to another. And infants and young children do adapt to all environments. Once they have exhausted the repertoire of genetic responses of crying and kicking, they are notoriously accommodating to adult wishes for untroubled, relatively passive responsiveness.

Zaporozhets (1964) has noted that consideration was given in the U.S.S.R. to providing each employed mother a full year's pay⁶ following the birth of her child, a consideration that was raised because of the obviousness of babies' adverse response to deprivation. Few people question that the infant in group care suffers in some degree. Since accommodation is so rapid for most children, however, the controversy continues as to whether the consequences are ultimately significant to personality, intellectual capability, or psychopathology. In this author's experience in both Eastern Europe and the U.S.S.R., children seen in group Day Care were singularly lacking in verve and spontaneity; they consistently appeared depressed. The most quietly dramatic event of the tours of various Soviet centers occurred in Leningrad, in a Kindergarten. While walking through empty play rooms, as children dressed elsewhere to await their parents' arrival, we heard laughter! Our hosts joked that we must be used to the dourness of the Moscovites. When we saw the children later, however, the explanation appeared more logically to relate to the older children's excitement upon greeting their own parents. Evidence of smiling is a poor criterion by which to question programs, yet it is not without interest that of the many photographs⁷ taken in the course of the author's tours, there is only one picture of one smiling child - one whose mother proved to be the group's caregiver (taken in Prague in 1965).

COMMUNIST RESEARCH CONCERNING THE DAY CARE CHILD

Social psychological and social psychiatric research, as noted, were interdicted in the Soviet Union until after Stalin's death. Both Tur (1954) and Schelovanova (1964) have conducted physiological research directed in part to circumvent the development of "hospitalization psychic disorders." Their programs for massage and exercise of babies appear widely used in the Communist Day Care nurseries. While Schelovanova and Aksarina (1960) refer to "hospitalism" in poorly organized nurseries, publications of research on this subject are either not available or are nonexistent. Further, the limited Soviet research that concerns environmental influence on maturational

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In its retreat from infant Day Care, the Czech government provides paid leave for maternal absence for one year and a reemployment guarantee of 18 months (Matejcek, 1970).

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Taken with a miniature camera, with super-sensitive film to avoid "flash."

processes has centered on residential care, only.⁸ The findings are worth noting: (1) that institutionally reared children are "better" adapted to subsequent formal schooling, i.e., they are more responsive and obedient to teachers; and (2) a percentage of those children suffer from some type of minimal yet specific verbal retardation. In 1967 such studies had continued through the age of 11 and the verbal retardation was still manifest (Koltsova, 1967).

East German data (Schmidt-Kolmer, 1970) suggest that nursery reared children scored higher on developmental tests at the time of entry into Kindergarten than those reared at home. This is a significant finding, though tests at such an early age are strikingly unstable and not good predictors of subsequent intellectual development. Like their Soviet institutionally reared counterparts, these nursery reared children also adjusted more easily to Kindergarten life. Pikler (1965) has indicated that data from her (exceptional) institution (Budapest) document that even residentially reared children can compare adequately with U.S. and U.S.S.R. developmental norms.

In the last few years, a number of conferences have been called by the communist nations to confer and plan collaborative, comparative research on the problems and consequences of their Day Care programs. Regrettably, theoretical orientations of the communist professional world continue to exclude psychiatric evaluations, except in the most global descriptive sense. Their research data have consistently reflected concern with relative maturational levels of motor and intellectual achievement (Schmidt-Kolmer and Hecht, 1964; Langmeier and Matejcek, 1965). It will be another decade or more before social psychiatric evidence will begin to become available, and by that time over 50% of their child populations will have been exposed to this social experiment.

As an incidental but unresearched clinical finding, some East Europeans have noted the tendency of the very young, group reared children to indiscriminately damage their playthings, without manifest anger, when not supervised closely. An abundance of toys and play material are usually conspicuous, but customarily neatly placed out of the children's reach. One Communist child care specialist reflected that they may need to reassess the chronology of "dialectic materialism" since, in the absence of private property (teddy bears), the toddlers have little respect for collective ownership.

Inhibition of aggression, however, in the early years of character formation may be clinically more significant. However meritorious the physical inhibition of aggression in the well-mannered older children, or adult, there is an extremely important question as to the age at which inhibition takes place and the degree to which aggression can thereafter be purposefully, consciously exploited (e.g., for proper, socially acceptable purposes.)

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It should be noted, however, that Soviet researchers apparently concur that the subjective experience of the under-threes in Day Care, who necessarily spend the predominance of their waking hours in group care with multiplicity of mothers, approximates that which occurs in the regime of a residential institution. Day Care infants, of course, experience more continuity of care at night and on week-ends.

Whatever the reservations of those child care staff in Communist countries who do not use Day Care for their own children, it is clear that the respective governments, Czechoslovakia excepted, strongly support and encourage the use of Day Care. The preponderance of the Communist scientific publications consider this work a significant advance, and the general public responds with enthusiasm and preparedness to use facilities that are so readily available.

SELECTED INSTITUTIONS: LOCZI, METERA AND KIBBUTZIM

There are specific characteristics of "institutional" types of experiences that are directly relevant to Day Care programs, particularly to difficulties in staffing. Loczi, the National Methodological Institute for Infant Care (Budapest), has a distinguished professional staff and excellent options in staff selection and training. Pikler, the director, has noted that conventional staff recruiting was anything but satisfactory and that it took years of experience to intuitively arrive at criteria for staff selection. August Aichorn is reported to have observed that empathic women could not stand the work of Loczi's caregivers and that Pikler's staff were "paternalistic" young women (Pikler, 1965).

The Metera Baby Center (Athens) was sustained by a socially powerful group that included the Greek Queen. Founded as an urban refuge for illegitimately pregnant girls who might find physical safety for themselves and their babies, Metera was intended as a neonatal, residential nursery that worked towards adoption of their charges. As a model institution with an extraordinary "well baby" nursing and training program (1963-65), unique staff selection opportunities were matched by staff ratios of one adult per child. Traditional academic training was extended for the nurses via courses in language, art, dancing, music, etc. Among Metera's selection criteria was the condition that nurses could not marry because marriage was a necessary impairment of the nurse's capacity for emotional investment in her babies. Yet, it is clear that the "objectivity" required of these nurses in evaluating adoptive parents demanded either a great deal of pain for the nurse, or an earlier disengagement from emotional mutuality with that baby. It is notable that almost all babies who remained at Metera beyond eight months demonstrated developmental lags.

The collective rearing of Kibbutzim children is discussed elsewhere⁹ and is noted here only in reference to (1) the high turnover of caregivers (Gerson, 1970) and (2) the staffing peculiarities of semi-institutionalization. Twenty of 200 Kibbutzim now have private arrangements for children to sleep in their parent's apartments, so that child care in these settlements approximates the conventions of Day Care. However idealized the Kibbutz in popular imagination, aspects of the original Spartan philosophy persist. In a study limited to an intergenerational sample of grandmothers, mothers and present children, Marburg (1970) has recently provided a powerful psychiatric statement on the internal debates that continue to trouble Kibbutzim child care planners. As a particular example of current practices that have possible psychiatric consequences, Marburg notes that for all their dedication: "To this day, the progressive educationalists and psychologists have found no response to their claim that children should not be left alone at night, without an adult being present. The night watch is restricted to an hourly inspection and the operation of the intercom system."

⁹ See Section III in this chapter.

FRANCE: THE PARISIAN CRECHE¹⁰

The economic stress of the majority of lower socioeconomic families in Paris has been a powerful inducement for full time employment of both parents. Day Care for babies from two months to three years of age has been provided as a social service to working mothers for over 50 years. In exceptional cases, babies from families with specific social problems are also accepted. Parents are required to meet part of the costs and a sliding scale is used to relate fees to family income. Government allowances are provided to mothers to offset this expense, at 2.3% of her salary (Davidson, 1962).

As of 1963, the Paris Administration of Public Assistance has established, or supervised, a total of some 130 creches. Limited availability and extended public interest contributed to long waiting lists. In older neighborhoods, both indoor and outdoor space requirements of the creches were inadequate. In the newer, suburban areas, housing developers customarily build creches, but usually turn the management over to the Administration of Public Assistance (Administration Generale, 1956-60).

The Paris creches are open for a 12 hour day. They are somewhat smaller than the East European versions, and accommodate about 40 to 60 babies. The quality of care appears to vary considerably from one center to another, depending more on the attitudes of staff than on particular physical options or limitations. Some nursing staff cannot be induced to provide rudimentary types of care that are indispensable to the babies' well-being. (This is not a peculiarity of Parisian nurses, one must add, since the same problem is demonstrable with some staff in Washington, D.C.). In particular inadequate practices babies were kept in bathnetette cribs all day, except for feeding, with cots placed close together, blankets were draped over the sides preventing the baby to observe little more than the ceiling and a few hanging toys. Such nursing practices have extended to a rejection of handling babies, on the justification that they might be accidentally bruised. Some nurses have rejected instructions that they turn babies on their stomachs for part of the day, out of morbid fear that the babies might suffocate. Despite stated regulations prohibiting premature toilet training, some caregivers have attempted to insure compliance by tying three month old infants in a potty. While such nursing attitudes are not general, their open continuation does represent a difficulty a supervising agency faces in attempting to enforce minimal standards. Even in the best of creches, there seemed relatively little attempt to provide infants with "stimulation" either by use of toys or visually attractive objects such as mobiles (Marans, 1963).

The director customarily has an apartment in the creche, and if she has children they are usually enrolled there. The director is responsible, usually without secretarial help, for a surprising range of activities: he must decide whether a child is too ill to stay and she must check health certification on return; she is responsible for contacts with welfare agencies to which babies may be referred; she is supposed to

These observations are dated (1963-65) and hopefully only portray problems of the past. This section is included to illustrate the problems of a central administration in limiting or modifying child care practices that are indisputably inappropriate.

supervise her staff and be available to the mothers who wish and need to know how their children fare; she controls creche finances and receives payment of weekly fees; she is supposed to select and purchase food from local stores while bearing in mind nutritional needs of the children and the available budget; from the selection of equipment and play materials made available by the Administration of Public Assistance, she selects those appropriate, in her judgment, for her center; etc.

Directors appear quite overburdened. While allowed some measure of autonomy, the caregivers usually reflect attitudes of the director. As a general observation, the caregivers have appeared skilled in customary functions of child care, reasonably warm and gentle with babies, and within limits, responsive in some measures to individual differences. As in Leipzig, and elsewhere, the creche staffs prefer the active, aggressive, more independent child. Parisian staff ratios appear enviable by East European standards since there is one adult to six to ten children. Even so, nursing assistants find little time for relaxed involvement with individual children. Staff ratios may be misleading, with respect to free time, since it is unknown whether the creche caregivers, like those of the communist nations, have an extended back-up staff for housekeeping and maintenance.

Babies accommodate to the system very quickly. From the staff's point of view, a baby does not customarily overreact to his mother's departure, unless she appears hesitant and conveys to the child some of her uncertainty. Staff would prefer to have mothers leave quickly since the quiet child facilitates their work. Incongruously, there seems to be no recognition of the possibility that babies who are sufficiently sensitive to sense maternal uncertainty, might also respond to their caregivers relative indifference.

As would be expected, the Administration of Public Assistance was less than satisfied with the creches or the standards of training, yet the continuing demand for more placements appears to consume available finances such that budgets remain too limited to replace those centers that are demonstrably inadequate. Staff shortages undoubtedly reflect the demanding nature of the work, the low status, and the low salary scale. Research on the effects of early Day Care appeared notable only for its absence.

CONCLUSIONS: A CRITICAL OVERVIEW

This less than complete review of some international child care programs permits a number of conservative conclusions that are relevant to present U.S. interests in Day Care. As a first consideration, one may review assumptions about Day Care that are either irrelevant or demonstrably untrue; secondly, there are lessons that derive from organizational experiences abroad; and thirdly, there are highly significant questions relating to the psychiatric dangers of early Day Care.

It is easiest to start with those assumptions that are irrelevant or untrue. Analogies made between proposed Day Care in the U.S. and the systems of Kibbutzim child care are simply illogical since the Kibbutzim are typically a unique configuration of self-selected families who are deeply committed to an experiment in social living that is almost totally unlike anything in the U.S. (other than our few rural, religious settlements). The Kibbutz child programs are organic part of life, and not an ancillary service for distressed or underprivileged families.

It has been argued that U.S. federal funding of Day Care would eventually lead to a decrease in spending for welfare, via the training and subsequent employment of welfare mothers whose children would be placed in Day Care. That Day Care could lead to economies in government expenditures seems contradicted by the evidence of the Communist nations. The capitol investments of these nations for adequate centers approximate a quarter of a million dollars per center, and the operating expenses have equaled one-quarter to one-third of the earnings of the mothers of each child, with the state typically funding 85% of operating expenses. Where government support and authority have been given, this has been understood as an assurance of the adequacy and desirability of Day Care. Under such circumstances, Day Care has become "socially acceptable" and the public has pressed for ever greater expansion and expenditure, even in Czechoslovakia at the very time that research evidence was leading to a reversal in national policy (for the under-threes).

We sometimes assume that recruitment, staffing and training of Day Care personnel should be elementary. The assumption is most questionable. The status of mothers, and their substitutes (whether babysitters or caregivers), is minimal in the hierarchy of U.S. social conventions. Since we lack the emotional zest of the Kibbutzim or the ideological thrust of the Communist world, it appears singularly unlikely that U.S. recruitment of caregivers could be maintained at a level much beyond that of France or East Germany. One might expect that the principle of lesser employability would determine the caregiver's self-selection and that, in lieu of high pay or high status, mobility of caregivers would be considerable.

Motives that were persuasive in the establishment of Day Care in Communist countries appear much less relevant in the U.S. The Communist nations have been hard pressed in their industrial development and have needed the labor skills that working mothers provide. The U.S. appears to have a diametrically opposite problem since our technological revolution has made many jobs obsolete and gives promise of an eventual reduction in the work week. Given the U.S. "generation gap," and ever increasing crime, drug and delinquency rates, a powerful argument can be offered in the opposite direction, that is, that there is a profound need for increasing direct maternal/parental involvement with children, particularly in the early years when social attitudes and conscience are formed.

The philosophical rationale that Day Care provides women with equal rights with men (to work) appears at first blush persuasive and reasonable. The psychoanalytic clinician would certainly be among the first to concur that some women would greatly relieve themselves and their children by the use of Day Care, when such mothers are miserable or distraught in the normal course of "mothering" and homemaking. This, however, does not solve the problem of the right of infants to proper nurture and care. The problems inherent in group care have profound developmental implications and it is anything but clear that men of intellect and determination can provide programs that nurture half so adequately as even the uneducated, unconflicted mother. Nor does the provision for equal rights to work take into account sufficiently the right of a mother to independently provide nurture and love to her own infant, in her own home, if she so chooses. There are many women who prefer to care for their own children at home, and yet find themselves unable to do so for economic reasons. The social

planner must ask, therefore, if the psycho-biological process of gestation and maternity confer special rights on mothers, namely, for optimal social support in the nurture of our young--a right that has never been realized under existing welfare programs. Planners also need to ask whether such support ought not to extend to direct assistance to the family as well as to public programs such as Day Care.

It is argued that provision of state supported Day Care could be of immediate benefit to many disadvantaged mothers who are overburdened with large families and excessive responsibilities in the absence of a husband. If Congressional concern, however, is to extend programmatic supports to the stability of disadvantaged families, then one may question whether Day Care should be the solution of choice. Day Care may free a woman to work, but it does not follow that it enhances her authority or her availability to her children, or her acceptability in marriage. Income maintenance programs, when analyzed in terms of costs and benefits, might be a more logical alternative than Day Care.

There are a number of uncontroversial findings that seem clear in the assessment of organization, administrative and staffing experience of international programs. Medical regimes have appeared inappropriate, wanting, and often damaging. The traditional educational model is equally inappropriate to the nursery and the "pedagogical" label of the Communist departments proves somewhat of a misnomer. Although these programs are increasingly administered in educational departments, these administrative units appear to be a new and continuing synthesis of professional ideas and practices that derive from pediatrics, nursing, education, and psychology, and this synthesis is far from complete.

The ineffectiveness of French supervising authority in maintaining minimal standards clearly illustrates a major administrative problem. Bureaucracies are hardly well known for their intrepid enforcement of even important regulations, and their dilatory action presents critical hazards in child-rearing programs that are less consequential elsewhere. Those who are familiar with the plight of other populations who suffer state care and supervision, such as the mentally ill, would urge that every Day Care center should have its Ombudsman.

If Day Care is to be used widely and beneficially, the "recognition" of the value of the caregiver must be extended in clear terms of status and income. Otherwise, the child in care remains the helpless victim of the lesser-employables. Physical characteristics of the Day Care centers and particular staff ratios, moreover, are as important to the staff as to the children. Empathic, sensitively tuned-in women do not continue in employment when the conditions of care leave children chronically upset or passively miserable.

In its selection of caregivers, Metera opted for the empathic-intuitive, (nominally) maternalistic woman. Pikler's benevolently paternalistic "professionals" appear as the polar opposite of a continuum on which caregiving qualities may be described. Metera may have erred in its screening policy that demanded a choice between marriage, with the prospects of biological motherhood, and the substitute of nursing care. Women who can opt for a profession to the exclusion of marital intimacy, may prove unprepared for the emotional intimacy and intuitive spontaneity that provide

a communication bridge for the infant and preverbal child. Moreover, if economics dictate staff ratios of ten babies per adult, as occurs commonly elsewhere, it is doubtful that empathic staff can endure the consequent depersonalization of babies and the pain the babies will manifest. Under these circumstances, staff may seek a solution in the alternative emphasis on professionalization and technical management of routines.

The most consequential and controversial question of early Day Care is that of potential danger and damage to the very children for whom the centers are designed. From a psychoanalytic viewpoint, the dangers of hospitalism to children are inversely related to chronological age: the younger the child, the more vulnerable he is to genetically determined, involuntary, automated adaptations.

Hospitalism is a rarity today in the U.S., the U.S.S.R. and other modern states. Hospitalism, a childhood debility first described and defined by Breneman (1932) however, can usually be found in the lesser of contemporary institutions of any nation. The phenomenon merits further comment since it is too often assumed that, in the absence of gross symptomatology, children are not otherwise effected. Hospitalism is an omnibus descriptive label that has had a varied professional usage, one more recently used as a synonym for anacletic depression (e.g., Hinsie and Campbell, 1970). The latter term, however, has a regressive clinical history that is relatively explicit as to age of onset. The range of developmental failures and arrests of early childhood that are subsumed under the term hospitalism are not well studied and psychiatric nomenclature lacks appropriate diagnostic labels for them (Sachs, 1970). Irrespective of whether the dysfunction is a developmental failure or a regressive process, some measures of retardation and depression are typical (see Jeffers and Sandler, 1965). The term hospitalism is a professional invention, a misnomer in its semantic, guilt reducing implications. The physical structure of hospitals or residential institutions have, in fact, little bearing on the pathology. Children who live with their families within the physical structure of an institution simply do not suffer from this malady. The significant causal variable appears to be the depersonalization of human relationships that are vital to the child's healthy maturation.

Other professions have seen psychiatry as the bete noire of the hospital and institution since its clinicians, of necessity, challenge the anonymity and professional detachment that proves so necessary, for example, to medical staff who individually and collectively (via routines) defend their own psychological equilibria from empathic responsiveness to the pains so constantly in evidence in their patients. Depersonalization can readily take place in institutions; it is demonstrable in private homes; and it is a chronic potentiality in group care of children. The typical maintenance of variables include (1) a multiplicity of caregivers who (2) are interchangeable, a problem that becomes greater where the dispersion of caregiving interests is to groups (rather than individual babies) who are (3) so young that they make spontaneous psychological adaptations that may not be totally reversible. Maturational adaptations that may be pathological, it should be noted, are not necessarily evidenced as developmental failures, e.g., Kanner (1942) and Jurek (1960) have described exceptionally precocious skills that reflect such severe pathological illnesses as autism.

The early years from birth through three appear developmentally as the time of maximum psychiatric risk, and failures of psycho-biological adaptation are manifest in a progression that includes marasmus, autism, childhood schizophrenia, and an extended range of poorly understood pathologies, e.g., impulse disorders, non-congenital retardation, psychopathic and schizoid personality disorders, etc. Since these severe pathologies are not directly evident in present Day Care populations of the Communist world, or in the experimental nurseries of the U.S., many academically oriented child development researchers presume that mental change is an all or nothing phenomenon. Yet one may confidently, dogmatically assert that no one knows enough about childhood developmental deficits to be completely certain of their presence or their remediation. However, clinical experience does provide dramatic evidence of the apparent irreversibility of psychological damage incurred in early and prolonged institutional care. Further, psychiatric and psychoanalytic experience constantly reaffirm the enormity of pain and effort necessary to modify even the more benign psychoneurotic disturbances. The clinician is less fearful of gross pathology that might derive from Day Care, than of incipient, developmental impediments that would be evident in later character structure, such as flattened feelings (schizoid personality), a-social attitudes (psychopathic tendencies), defense against emotional intimacy (fear of marriage), etc.

Anaclitic depression is a universal phenomenon that toddlers suffer when separated from mothers for any appreciable length of time (Spitz, 1946). The Soviets have recognized the greater difficulties of accommodation after seven months of age and place many babies earlier. The adaptational, psychiatric consequences of early placement can prove extreme, though the process is subtle. Where a baby's aggressive hurt and anger in response to separation is not mitigated, and his anger is afforded little option for external expression, such recriminations may be internalized and "turned back on the self" and thus provide a base for clinical depression in later years. In time, the Communist nations will inevitably provide epidemiological evidence of the behavioral and emotional effects of group care.

In emphasizing the potential damage of early Day Care, there is a danger of implying that there is little risk for the three to five year olds. From the psychoanalytic viewpoint, the maturational vulnerabilities of that age span include (only) the risk of phobic, hysteric and obsessional neuroses and these risks certainly should be taken into account. Nevertheless, the child who is emotionally secure in his third year exudes intellectual curiosity and evidences a hunger for experience with his contemporaries and, in this instance, part-time Day Care offers delight and a momentous learning experience, i.e., so long as the option for daily attendance remains, more or less, with the child.

Child care by experts seems to have found a ready audience in both Congress and the general public. With Moynihan (1969) one may comfortably state that science is at its best as a critical tool, and that the scientist has lost his perspective when he commends modifications of such complex social-cultural-psycho-biological processes as child-rearing. Given the present state of our ignorance about psychiatric damage, massive Day Care programs appear all too much like Pandora's box. Those who would convey the idea that Day Care is unproblematic should review the programmatic, compensatory routines of Soviet texts (Tur, 1954; Schelovanova and Aksarina, 1960; Schelovanova, 1964) and the U.S. literature of child development

research (e.g., Escalona and Leitch, 1952; Skeels, 1964; Mcv. Hunt, 1964; Bloom, Davis and Hess, 1965; A. Freud, 1965).

In specifying the apparent dangers of early Day Care, one cannot ignore that some alternatives present even greater hazards. A range of studies of existing child care methods documents that disadvantaged children are too often left unattended for hours, or are cared for by older siblings of five and six years, or by ill and senile adults. The inadequacies of child care for some of our most disadvantaged mothers quite outweigh professional reservations and concerns about Day Care. Yet the danger in recommending Day Care, however conditionally, may be likened to the medical use of morphine. The pain of the symptom may be relieved without cure, and addiction may follow.

Some clinicians and child development researchers, such as this author, are presently in an anomolous position. They have long and fervently recommended and supported the establishment of Day Care centers for special cases for the very young; yet, it now appears that a conditional recommendation may be misunderstood as a general endorsement. Professionals have previously carried partial responsibility for the oversale of institutional care, for foster care, and more recently for Head Start. Group Day Care entails far greater risks and these should be taken only where the alternatives are patently worse.

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Section B

DAY CARE PROGRAMS IN DENMARK AND CZECHOSLOVAKIA

Marsden G. Wagner and Mary Miles Wagner

The observations in this report were made by the two authors while on a World Health Organization study tour of Day Care services in the spring of 1970. National and local policy makers, professionals, directors and personnel were interviewed, homes and centers were visited, and descriptive written material was reviewed in each country we visited.¹

In this section we shall summarize some of our observations on two nations that have well developed Day Care programs--Denmark and Czechoslovakia. We shall conclude with some generalizations which seem worthy of consideration by those planning Day Care services in the United States.

The governments of Denmark and Czechoslovakia have been actively involved in the development of Day Care programs for some time. However, their systems differ markedly in many important ways. Although both countries have been very successful in coordinating care programs for children, the Czechoslovakian system appears to rely almost entirely on mandates from the central government to accomplish this, whereas the Danish system relies more heavily on local initiative and voluntary cooperation and depends upon the national level mostly for encouragement and guidelines.

These administrative differences, however, are perhaps not as important as the programmatic ones which appear to reflect basic differences in the philosophy and theory of child care. In the Czechoslovakian crech and Kindergarten programs, there is an emphasis upon the controlled development of the child along predetermined lines with an added stress on group solidarity and group norms. The Danish child care center is almost antithetical in this regard since emphasis is upon individual freedom and the child is expected to explore his environment and develop, within certain wide limits, at his own rate of speed and in his own direction. The Czechoslovakian child care centers stresses cleanliness and orderliness in its environment whereas the Danish counterpart emphasizes an enriched environment where the child has easy access to all things (toys were always on the shelves in Czechoslovakia and generally not on the shelves in Denmark). In Denmark, the family is involved in many cooperative ways (parents were frequently seen visiting throughout the center) while in Czechoslovakia the staff-parent relationship appears to be on a one-way basis from staff to parent (parents are not allowed inside the room where the children spend the day). Perhaps these programs differences could best be summarized by saying that, in Denmark, it

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This tour also included visits to Finland and the Netherlands; however, because these two nations--like the United States--are just beginning to think about and plan for Day Care as a large scale public program, we shall not discuss our observations there. We should note, in passing, however, that the Netherlands does have one notable Day Care program: preventive Day Care for "high-risk" children whose development is threatened.

appeared to us that every attempt was made to fit the program to the child and his family while, in Czechoslovakia, it appeared that every attempt is made to fit the child and his family to the program. It is our opinion that empirical trial and error have led the Danes to evolve, over the years, the highest quality and most humane services for children that we have observed anywhere.

The financing of Day Care programs in Denmark comes from three sources: the national government (through the Ministry of Social Affairs), the municipality (through the local child and youth committee), and the parents of the child in question. However, where industrial Day Care is provided, an employer may share in the costs also. The amount which parents contribute financially depends upon the family income and payment is on a sliding scale. The fee is received by the municipality which serves as a financial intermediary and pays for the services rendered.

The Day Care programs in Czechoslovakia are completely financed by the national government, without charge to the parent (except in small fee for children of Czechoslovakian who works outside the home has a monthly education fund, a pay check--based on his income and family size--and he and his family then become eligible for all care programs without cost.

All care programs for children under three in Czechoslovakia are the responsibility of the community health center located in the neighborhood. The pediatrician in the center who, like all physicians, is a full time government employee, is responsible for the preventive and curative health care, nutrition, education, Day Care and any welfare program for the children 0-3 years old, and for the preventive and curative health care of those from three to 16 years of age.² The two ministries of Health (Czech and Slovak) completely control the setting of standards and program development of the programs for children under three and it is the local pediatrician's duty simply to carry out these programs. An elected health committee comprised of lay people in each district are responsible for seeing that each community health center fulfills all the mandates of the Ministry of Health.

Local child advocacy mechanisms are an essential element of the system of administration of child care programs in Denmark. Although there are three levels of responsibility for these programs--national, municipal, and county --the trend is toward a decentralization of administration from the national to the city and county levels. The Ministry of Social Affairs has the job of policy making, standard setting and general surveillance, although other governmental bodies are involved in setting standards.

The major part of the direct administration of individual Day Care programs, however, takes place at the municipal level, although counties have recently been given this responsibility too. A local child and youth committee, comprised mainly of lay citizens, attends to the organization and administration of local Day Care programs.

In both Denmark and Czechoslovakia, separate services are provided for

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Currently, the local pediatrician serves 1,670 children from 0-16 years of age. The government's goal is to reduce this ratio to one pediatrician for every 1,300 children in this age range.

approximately the same age range of children: those from 0-3; those from three to six or seven; and those beyond six or seven. These separate programs will be described below.

Infant Day Care in Denmark and Czechoslovakia

1. Infant Day Care Homes in Denmark

In Denmark, it is felt that there is a certain group of children under three whose Day Care needs are more satisfactorily met in a private home that cares for two or three young children than in a large, centralized group care center. These children are considered to be at "high-risk" from a developmental point of view. Frequently, they are the babies of "lonely" mothers (unwed mothers), infants from broken homes, or those from homes with some known pathology (e.g., retarded or disturbed sibling or an alcoholic father). Children of student-parents, of low income families, or those whose parents have chronic illnesses are also given priority for admittance to this program. Non-high-risk infants are theoretically eligible for such care, but generally there are not enough homes to meet even the needs of high-risk infants.

Although the program was designed to benefit children, it also provides a fringe benefit to others in the community since it allows women who prefer to work at home (perhaps because they have children of their own to care for) a means of supplementing their income. Potential Day Care mothers are interviewed by a supervisor who determines if they are good at this type of work by watching them in action. If chosen, they are initially employed on a trial basis and observed very closely for the first few months. Their homes are inspected for cleanliness, size (they must have at least two rooms), and adequate plumbing and kitchen facilities. There are no special educational requirements for selection; however, preference is given to women who have experience in rearing children of their own.

The supervisor has the task of matching the child and his problems and needs with the Day Care mother and her home and family. For example, a child of an unwed mother might be placed with a family where the father is frequently present. Consideration is also given to the distance a parent must travel to bring the child to the home. Generally, two or three children are placed in a Day Care home; however, if the Day Care mother has any children under three they are also included in this infant census.

Once a home has been selected, the child is placed in the home on a trial basis. It is considered important for the Day Care mother to establish a good relationship with the natural mother, one which will permit the Day Care mother to make helpful suggestions about child-rearing. The supervisor assists closely in the establishment of a good worker-parent relationship; however, if it fails to develop, the infant is placed in a different Day Care home.

The supervisors are vital to the success of this service. They come from a variety of backgrounds, such as nursery school teaching or child health nursing. District supervisors are available to take calls from both parents and Day Care mothers regarding any problems which may arise. For example, the supervisor may arrange for a home-maker service in the child's

own home if he is too ill for Day Care so that his mother may work, as usual. Or, she may immediately arrange a meeting between the parent and the Day Care worker, where this seems necessary. Meetings of this type are held regularly at least twice a month, even when no acute problems arise. The Day Care mother may anticipate at least two unannounced visits monthly from her district supervisor.

Supervisors also have charge of an ongoing in-service program for both the Day Care mothers and the parents. The district supervisor meets separately with all parents and workers in her district once a month. Discussion of various aspects of child care, health, and child development are held. Such information is supplemented with educational pamphlets and regularly scheduled home visits by the public health nurse. The latter visits the Day Care home to conduct routine pediatric examinations and to administer immunizations and other preventive health measures.

2. Group Day Care of Infants in Denmark

Normal children without special problems, up to three years of age, are generally placed in neighborhood child care centers in Denmark if their mothers work. Several principles were considered important in the establishment of these centers: Day Care centers should be built near the children's residence, rather than where the parents work; many small neighborhood centers are preferable to a few large centralized ones; children of all ages in need of Day Care should be served by each unit (Kindergarteners as well as infants); all care services, including (routine) health and social services, should take place within a unit; and, centers should provide care for children from at least 6 A.M. to 6 P.M.

Experience with industrial Day Care has not proven to be the most feasible arrangement in Denmark. Parents do not visit their children during the day, which is the major hypothesized advantage of such centers. Further, parents generally have to awaken their infants earlier and transport them much farther when the center is located at the job. The industrial Day Care center we visited (Tuborg Breweries) appeared comparable in quality to the neighborhood government sponsored centers; however, the staff did note considerable employee dissatisfaction when there was no available space for a child in the center. Seemingly, it is easier for employees to understand why the government cannot sponsor sufficient centers for all working parents than it is to understand why a factory cannot provide a sufficiently large center.

Although larger, more centralized centers housed in traditional buildings do exist, all new child care centers presently being built are smaller, neighborhood, prefabricated units with a flexible modular design, standardized and accepted by the national program. The design of these units was the result of careful deliberation. For example, a belief in the value of much outdoor activity has resulted in an indoor-outdoor type of construction. Further, common play yards have been designed because it is considered beneficial for children of various ages to mix with one another, even though age-mates do have separate wings, or suites, within each unit. The value placed on individualization has resulted in each child having his own well marked locker, towel, clothes, bed, and so on. The center also includes a number of child-oriented safety features. For example, they are all built on one level, so there will be no stairs to fall down.

The physical facilities include a "changing and meeting" room where the parent brings his infant each morning and may also meet with staff members to discuss some matter related to the care of the child. A small isolation-observation room is provided for children suspected of developing an illness or who need temporary removal from the group for social or psychological reasons. The suites housing each age group include a large room for eating, sleeping and play, and other rooms for toileting, changing and bathing. The size and construction of the furniture and equipment in each suite varies, depending on the needs of the age group served.

Children up to the age of three are cared for in three groups, each with its own particular staff-child ratio, suite of rooms, furniture and play equipment, and appropriate activities. Although certain general routines (bathing, mealtimes, naps, etc.) exist for all groups, no formalized curriculum for systematic cognitive stimulation or skill training is practiced, as one finds, for instance, in Czechoslovakia.

One can get an idea of the amount of individual attention possible by looking at the staff-infant ratio for the youngest group (three to ten months of age). National regulations require a minimum staff-child ratio for this age of one to four, with an optimal range during play and eating, of one to two. A maximum of ten small babies may occupy a suite and they are cared for by three full-time child nurses who have been specially trained to work with this age group. In addition, each center has two other child nurses who circulate from suite to suite and a director and assistant director who are also frequently in each suite. The babies are picked up, played with, cuddled and soothed, according to their individual needs. There were no signs of the all too familiar scene noted in other countries--that is, rows of cribs, each with its little prisoner lying flat on his back. Rather, as soon as a baby can crawl, he is put on the floor where there are toys he can creep into, push around, pull and rock. If he is too young to sit alone, he is comfortably and safely arranged so he can watch the activity of his older mates. There is music to listen to, mobiles to watch, rattles to shake, and always someone who will talk to and amuse the infant if he runs out of ideas of his own. We never heard a baby cry in one of these centers. Individual differences are considered, to every extent possible, in the daily routines, such as feeding and sleeping.

At around ten months of age, a baby is moved to a more appropriate suite where he stays until he is 18 months old. The same staff ratios which applied when he was younger also obtain in this suite, although government regulations require only a minimum staff ratio for this age group of one to five, with an optimal maximum of one to two-and-one-half during play and eating. There is much open floor space where the baby can practice walking; there are different and exciting toys for him to manipulate and he can sit safely at specially constructed tables with his feet on the floor if he still needs support. He can also sit at this table and feed himself, under the close supervision of the staff. There is a play area just outside where the child is encouraged to go whenever he wishes.

At 18 months, the baby moves to a suite where he will remain until he is three. Twelve children are placed in this age group, with the same number of staff to which they had been accustomed previously. Government regulations require a minimal staff-child ratio at all times of one to eight, with a optimal ratio of one to four during eating and play. Now the

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chairs are separate from the tables and the latter double as play and eating space. The baby is self-feeding and toilet trained, although both activities are still supervised. The toys are now different but more appropriate for this age.

An attempt is made to have the children move in groups from suite to suite as they grow, so they can establish permanent peer relationships. Although these moves involve changes in staff, the child is always familiar with the same supervisor and her assistant. The frequent floating of staff from group to group, and the existence of close staff rapport, is an aid to children in becoming familiar with all staff members.

The infant care worker, called a Child Nurse, is not a "nurse" in the sense to which we are accustomed, but has training unique for this job. Nurses are recruited from the ranks of students who are finishing their secondary education, most of whom are, approximately, 16 to 17 years old. They go directly to one of the 14 institutions in Denmark whose sole purpose is to train Child Nurses. Here the student has a year of course work which includes lectures, readings in child health, development, and nutrition, as well as study and practice in techniques of interviewing and inter-personal relationships. There is also a year's internship in a Day Care center with a special, highly trained staff. Successful completion of this program entitles one to be a Certified Registered Child Nurse. A career ladder exists for those trained in this occupation. Although over 90% of these nurses have been female in the past there is now a concerted effort to recruit male child nurses. Salaries are comparable to those of an experienced secretary or journeyman plumber in Denmark. Although there is a fairly high attrition rate among young women working as nurses, the government accepts this fact as a fringe benefit for the welfare of the country, since the training and experience of these girls will make them better mothers.

3. The Crech in Czechoslovakia

Crech is the name given to the neighborhood child care center for children under three years of age in Czechoslovakia. Most creches are separate buildings and are not located near schools and Kindergartens; however, new construction will provide for the crech and Kindergarten to be side by side. Ninety percent of the creches are located in the neighborhood; the remaining proportion are located at factories. The Czechoslovakians, like the Danes, have not found industrial Day Care a suitable arrangement--and for the same reasons which were alluded to above. Thus, no new creches will be built at factories. Instead, the government is supporting construction of Day Care services located in a neighborhood near where the child lives. Many of the new centers are located in the middle of large apartment complexes.

The crech provides its children all care--social, educational, nutritional, preventive and curative health. Overall supervision is provided by the pediatrician who not only attends to health matters but also meets with the staff to discuss children's progress in all areas. Pediatricians in Czechoslovakia are specially prepared for this responsibility. A government psychologist also consults regularly with the staff. Direct child care is given by nurses whose training differs from that of nurses in Denmark. They are public health nurses with special training in the care of children from birth to 15 years and they can choose to do nursing in

the community health center or to work in the crech. They receive in-service training in the crech by the pediatrician, psychologists, and educators. The nurse meets regularly with the parents, largely for the purpose of educating the parent about child-rearing in general, and the progress of his own child in particular, rather than sharing information.

The crech is open from 6:30 A.M. to 7:30 P.M. Fifteen children from three months (minimum age) to one year of age are placed in a room where there is a staff-child ratio of one to six or one to seven. This same number of 12 to 18 month olds are placed in another room with the same staff-ratio. Two other groups of 20 children each--one of 18 to 24 month old children, the other of 24-27 month olds--are located separately from each other and the other groups. The staff-child ratio for each of the two older groups is one to eight or one to ten. In all groups, there is a great emphasis on cleanliness. The children and staff are provided special uniforms to wear in the crech and all visitors must remove their shoes and wear something over their outer clothing. The rooms are scrubbed frequently and have a "sterile" appearance similar to that of hospitals in the United States. They have a barrenness not seen in Denmark.

In 1967, the Ministry of Education wrote for the crech a downward extension of its already highly developed, highly specific Kindergarten curriculum. This curriculum was to be applicable to children age 12 months and over. The Ministry of Health opposed this crech curriculum, maintaining that it did not sufficiently consider individual differences and individual freedom to explore the environment. Although the Ministry of Health had an opportunity to criticize the curriculum and make minor changes, they nevertheless had no choice but to accept the plan. The plan includes how many minutes each week are to be devoted by a child at a given age to the learning of a specific task. Each child must reach a certain achievement level at a certain age. Teacher manuals direct the teaching of skills and the recording of the achievement of each child. Starting at 12 months of age, children are taken one at a time, or in small groups, along with a child nurse into a corner of the room where they are "taught" for 15 minutes several times a day. When they are not being "taught", they are napping (a total of four hours a day), eating, or having free play. Although all toys are designed and selected for use in the crech, there were considerably fewer play objects than in Danish centers.

The crech was theoretically designed for all children; however, more recently, the government has begun to plan creches (and Kindergartens) for those who do not fit into the program, including physically handicapped (which also covers the blind) and emotionally disturbed children.

Several years ago, a brief attempt was made to develop Family Day Care homes (called the micro crech.) The government abandoned this program for several reasons: no solution could be found for the problem of child placement during the illness of a Day Care mother; the difficulty in finding good Day Care mothers; and, insufficient government control over the daily activities of the child.

Kindergarten in Denmark and Czechoslovakia

1. Kindergarten in Denmark

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Kindergarten in Denmark differs in many respects from Kindergarten in the United States, although it has elements similar to our Kindergarten, nursery school, and preschool combined. The age for Kindergarten in Denmark is from three to seven years; however, the goal of providing universal Kindergarten is far from being achieved, due to the costs involved. The Kindergartens are located in the neighborhood child care centers, rather than being part of an elementary school, and most children attend for a full day.

The Danish Kindergarten may be considered simply another suite, or set of suites, in the child care center. The staff includes the usual Child Nurses, but also, a regular Kindergarten teacher and her full time assistant, all of whom are responsible for providing a planned curriculum of activities for several hours a day. These activities are similar to those found in quality nursery schools and Kindergartens in the United States. During the more formalized hours, the staff-child ratio is one to ten.

The Child Nurses provide the more informal care of the children. When the Kindergarten children are not napping, eating or attending the more formal activities, they have free play in their suites or in the play yards, often with age-mates from other Kindergarten suites and also with older and younger children.

2. Kindergarten in Czechoslovakia

The Czechoslovakian Kindergarten is for children three to six years of age and provides both educational and Day Care services. Only children of employed parents are eligible for this service and the government states that most children of this age group whose mothers work are now in Kindergarten.

The Kindergartens are the responsibility of the Ministry of Education and have a highly planned curriculum which, as we have noted, dictates the amount of time each child is to spend in various activities during the day. In academic and preacademic work, as well as activities in music, art, physical exercise and even napping, there are carefully detailed instructions about teaching in the curriculum. The Kindergarten we visited had 120 children--30 to each room. Each group had one teacher in the morning, and another in the afternoon. Kindergarten teachers have four years of training in education.

After School Care in Denmark and Czechoslovakia

1. After School Care in Denmark

At age seven, children in Denmark begin to attend a regular elementary school. Children of working parents, however, are eligible for after school care, frequently in the neighborhood child care center which they attended as infants. This program accommodates two age groups: those from seven to 14 and those from 14 to 18 years of age.

There is slightly more supervision for the younger group of children than for the older. There is a "home room" for each group of 20 younger children, with a director who is responsible for the group and to whom the children report each day. Otherwise, they are free to move about as they wish. They may choose activities from among a number of crafts. There is

a woodworking room, a metal shop, a ceramic room, a painting room, and so on, each staffed by a specialist who is often a practising craftsman working part-time at the center. Those interested in cooking may use the kitchen facilities freely. The recreation room contains ping pong and pool tables, table games, lounging chairs, and a snack bar. There is also a library-study room. The children may arrive as early as noon and stay as late as 10:00 P.M., if necessary.

Children between 14 and 18 years of age differ from the younger after school group in that they are not assigned a home room to which they must report each day. Otherwise, they may use the same recreational facilities as the younger group. There is a full time recreation director for every 20 children of this age, and they may attend the center between 3:00 P.M. and 10:00 P.M. Parents pay a small sum of money, on a sliding scale, for this service. Children must be registered members to attend the "recreation club" as they call their group, but otherwise may come and go as they wish. They frequently organize parties or outings for their group and mingle freely with the younger children, including the infants, as well as their own age-mates. They are given a voice in decision making related to center activities.

We asked the directors if there was any attendance problem for this group, since the children may come and go as they wish. They replied that the problem was just the reverse: former members of the club tend to keep coming back and 18th birthday parties are scenes of great mourning for lost members. The carefree, joyous, permissive atmosphere of these clubs made these comments easy to believe.

All the activity rooms used by older children are used for special recreation programs for "pensioners," that is older citizens of the neighborhood, during the morning hours. The center is open on weekends for both groups to use as they please and frequently the two groups will be found at the center at the same time, sometimes working on joint projects or activities.

2. After School Care in Czechoslovakia

Czechoslovakian children begin elementary school at the age of seven. However, this school is open only in the morning. Consequently, there are two types of after school programs. The first is for children of working mothers. It is open from 1:00 P.M. to 6:00 P.M. and attendance is compulsory. This program is located either in the elementary school or some adjacent building. Except for one hour of free play, the children's activities are determined by a regular written schedule that was planned by the Ministry of Education. The program we visited had 100 children and five teachers and the ambiance was that of a school.

The second type of after school program is the voluntary "club", which is for children over ten who do not need Day Care service; however, occasionally a child from the first type of program may gain permission to attend such a club for part of his regular afternoon schedule. Each "club" may specialize in some activity, such as dancing, gymnastics, swimming, etc.

Final Comments

While there are, as one would expect, wide variations in the Day Care programs we observed, it seemed clear that there were certain common principles that have emerged from the experiences of these countries which, we believe, are important to those interested in or responsible for Day Care programs in the United States. We will briefly describe these common factors below.

The first fact, in all the countries we observed, is that the quality of care and cost are inextricably intertwined and, as a result, good Day Care is expensive. For example, at least for the younger child, the number of children per adult caregiver is a crucial factor in the quality of that child's environment; yet, staff salaries are the biggest item in ongoing expenses. As a consequence of the cost of quality care, none of the countries we observed have been able to supply enough services to meet their needs. This results in two difficult tasks: 1) establishing a system of priorities with regard to which children will be accepted first for Day Care; and 2) establishing the priority which Day Care has in the list of demands placed on limited government funds.

A second fact discovered in these two countries is that it is entirely feasible to effectively integrate Day Care services with other service programs for children, including preventive and curative health care, education and social service programs. Further, the Day Care programs serve as one central point for coordination and distribution of care programs for children. Our observations led us to believe that the local child advocacy mechanisms were an essential element in the Danish system.

A principle which was uniform throughout our observations was the importance given to the relationship between the child's parents and the child's daytime caregivers. There is a firm belief, especially in Denmark, in the family unit as the keystone of child life and a belief that quality Day Care can strengthen this family unit through regular, frequent contacts between Day Care workers and parents, through parent education programs which emanate from the Day Care program, and, in special circumstances, through giving assistance to families whose functioning is below a desirable level or in jeopardy of becoming so. Such Day Care clearly assists the families both by relieving them from the total care of their young so they may direct their energies elsewhere and through the use of Day Care as a mechanism for bringing outside assistance to the stressed family.

Denmark and Czechoslovakia have shown, we feel, that it is possible to set up a national system for Day Care services. The programs have developed empirically over the years in these two countries, with little or no attempt to evaluate them scientifically. Thus, the last point we observed was the need for careful scientific evaluation of these Day Care services. There are a number of questions which we, and many of those we talked to in Europe, felt are urgently in need of study. Two examples are: Do different types of Day Care programs affect the development of the child in different ways and, if so, how?; What are the critical variables influencing the care seeking behavior of parents?

These, then, are what we found to be some of the most important lessons in Day Care services to be learned from nations which have had experience in developing organized systems of Day Care. It is our hope that other countries which are developing Day Care programs might benefit from these lessons.

Section C

CHILD CARE FACILITIES AND THE "ISRAELI EXPERIENCE"

Hava Bonne Gewirtz

The rapid deterioration of urban living conditions in this country in recent years has intensified the search for adequate child care facilities. Essentially, though not in principle, this is a problem of providing facilities for the lower class mother to place her pre-school child while she is at work. Unlike her middle class counterpart, the lower class working women's income is often critical for her family's support; yet her pay is low and she cannot afford to hire a babysitter to supervise her children at her own home. At the same time, the relevance of child care facilities goes far beyond the placement of individual cases, as it is highly concomitant with the overall issue of improving the educational, social and economic conditions of the disadvantaged segments of the population.

This pressing need has given rise to a revival of interest in possible solutions, here and elsewhere. Conventional residential institutions seem to be on their way out and have been condemned, anyway, as having long lasting harmful effects on the child. Yet, even when most current forms of institutional care are disqualified, one may still ask: Under what conditions could other people or organizations substitute for a mother's caretaking of her young child? Or, phrased alternatively: To what extent is it essential for the child's well being that he be raised completely within the conventional setting of the nuclear family? Such questions have been raised before, at the theoretical level, by anthropologists and other social scientists. However, the recent revival of this interest has been due primarily to the practical contributions which various types of child-rearing settings could offer to the solution of current child care problems.

It is in this context that the Israeli Kibbutz has attracted renewed attention. As a matter of fact, the Kibbutz has aroused so much interest that for many it has become synonymous with the "Israeli experience" in general. This intense focus has overshadowed the fact that many other child care services are available in Israel, and at the same time, has yielded a somewhat distorted picture of Kibbutz practices.

In order to place this report in a proper perspective, it should be noted that there are several different forms of child care in Israel. There are residential institutions which serve mostly as placement for children who have no intact family. There are Day Care centers for children of working mothers, and there is the collective form of child-rearing which is part of the unique setting of the Israeli communal settlement--the Kibbutz. Residential institutions will not be considered here, but the Day Care system will be described briefly, in order to indicate its extensive existence and its relatively unknown uses. The bulk of this report, however, will be devoted to an examination of the Kibbutz educational system. This exclusive emphasis seems desirable because of the widespread interest in the Kibbutz as a possible model for child care solutions elsewhere in the world, and because of the need to clarify

many misconceptions regarding its nature.

Day Care

The Israeli day centers are basically quite similar to those existing here and in other countries, except that they are much more numerous and more extensively used. Established and subsidized by various government agencies, labor unions and women's organizations, they are available in cities as well as smaller settlements. There are day centers for infants and toddlers, as well as extended-day nursery schools and Kindergarten arrangements for older children. Essentially, all of these arrangements have facilities where, for a minimal fee, working mothers can leave their children for the duration of their work day and take them home in late afternoon. The child spends evenings, nights, weekends and holidays at home with his family. But every weekday morning he is brought to the center where he receives most of his meals and where both his rest and his play periods are supervised. The training of the caretakers is limited and emphasizes the physical aspects of caretaking and the maintenance of healthy and sanitary conditions in the center.

These care services serve predominantly the lower income group of the population, particularly the relatively recent immigrants from Middle Eastern and North African countries. These immigrant families tend to have many children and the mothers frequently work as domestics to augment family income. The families are in the process of settling in a new environment, and still lack the tradition, education, and skills which are prerequisites for adjustment to the basically western Israeli society. Lacking, for example, are fundamental concepts of proper nutrition, hygiene and pre-school education.

Thus, even if these Day Care centers are considered far from satisfactory, they do provide some conditions which are superior to those prevailing in the home environment: a mother can be sure that her child is physically safe, properly fed, and decently treated while she is at work. Even if she did not work, she could not always provide these conditions in her crowded home. Although some parents do voice complaints, and criticisms by professionals are common, the fact is that these Day Care centers are available to anyone who wishes to take advantage of them. Further, they increase opportunities for families to establish themselves economically--a benefit which often outweighs consideration of any questionable psychological effects such child care arrangement might have on the individual child.

Lastly, it should be noted that these Day Care centers function subtly to help assimilate the immigrant and indigent generation into the more established segments of the population. Thus, in their long-range effects, the Day Care centers can be considered as socializing agents of the Israeli society. (In this respect, they are like many of the other public services, which Israel provides to and demands from its population, including even the Israeli defense services. Although the immediate goals of child care and military training are obviously divergent, each of these services becomes an important catalizer in the process of consolidating an enormously heterogeneous population.)

Middle Class Child Care

Compared to the United States, middle class Israeli women, as a rule, do not conceive their role to be so exclusively that of mothers and homemakers. Many are employed outside their homes. They tend to return to their jobs shortly after their children are born and continue working for many years. This trend is facilitated by liberal maternity leave, and widely subsidized health and retirement benefits. In part, this working pattern is due to the necessity to augment family income in order to afford the luxuries of the middle class standard of living. However, the desire to work also stems from a pioneering-egalitarian tradition, a belief in the professional advancement of women, and the relative lack of stigma attached to the working mother. Rather than avail themselves of the services of the Day Care centers, these middle class mothers tend to employ domestic or babysitting help for the first few years of the child's life until the extensive nursery school system can be used. The country is small, and even in the few larger cities, locations are easily accessible via public transportation. (It is quite possible--and typical--to be home by 3 P.M. after a full day's work.) Thus, care arrangements in the home are preferred by many middle class Israeli women for their very young children, although their income--even if they are professional women--is much closer to their maids' income than is the case in the United States.

This brief summary suggests that the common child care solutions employed by Israeli working mothers are basically similar to those found in this country and others, and they seem subject to the same difficulties and shortcomings. Their widespread utilization may not be due as much to their superior quality as to the circumstances of the family within the society at large: Day Care centers offer supervised care which lower income immigrant families can rarely provide, whereas accessible services and subsidies enable middle class mothers to continue professional work after they have a family.

Child Care in the Kibbutz

The singular child care system of the Kibbutz is meaningful only if one is informed about the basic features of Kibbutz structure. Since space permits only a general sketch of these features here, the interested reader is referred to several sources (Spiro, 1958; Rabin, 1965; Bettelheim, 1969) for a more detailed and authoritative account of this topic. The remainder of this review will be devoted to a selective discussion of those aspects of the Kibbutz which have relevance and implications regarding the child care problems which are of concern in this volume.

Basic features of Kibbutz life - The Kibbutz is a voluntary, predominantly agricultural collective settlement comprising typically between 100-400 members. Its major features are communal ownership of property and collectively determined economic production. The system excludes private earnings. "From each according to his ability and to each according to his need" is the major principle which guides Kibbutz life.

Work assignments are determined daily by an elected work committee. While the more skilled jobs are "permanent" or assigned for a period of a year or longer, menial or seasonal duties may be rotated daily among the members. Both men and women work eight to nine hours daily on their jobs. Evenings are taken up by collective meetings, committee work, and cultural activities. A couple (husband-wife unit) typically occupies a one or two

room residence which serves as sleeping and living quarters. But most other conventional family functions are taken over by the central facilities of the Kibbutz, e.g., the communal laundry, or the dining hall where all meals are served. There is no family "household" in the sense to which we are accustomed in western society. However, the most dramatic aspect of living in the Kibbutz is the communal rearing of the children.

Kibbutz children live from birth on with their age group, not with their parents.¹ These groups reside in separate children's houses which represent all age groups from infancy through the high school level. Although this miniature world of children is physically distinct from the adult's community it also emulates it to a certain extent and includes facilities such as the children's kitchen, laundry, play yards, and animal farm. The children eat, sleep, play, and study in their respective houses with their age-mates. Yet they meet their parents and siblings daily during the "children's hour," i.e., the later afternoon period specifically reserved for family interaction.

Each pre-school age group typically numbers between six and eight children. The group is housed in a separate building unit and is cared for by a trained caretaker and her assistant. Both are assigned this task by the Kibbutz education committee, which also determines their initial and continuous professional training in appropriate schools. The low caretaker-child ratio, together with the emphasis on up-to-date caretaker training and the specially designed children's houses and related facilities, make child care an expensive item in the Kibbutz budget. Yet, Kibbutz members are proud of this system and are willing to pay its price. Education in general is highly valued, both in its practical and theoretical manifestations.

It is not surprising that some have considered the Israeli Kibbutz an enviable model for child care. Here is a situation where mothers--as well as fathers--are free to engage in a meaningful adult life of their own, while at the same time, bearing children and maintaining close family relationships. The children in this system are well cared for and are exposed to a wide range of educational and recreational experiences which are beyond the resources of even the most affluent middle class families. The consensus among most professional observers is that they develop into capable, dedicated, and well adjusted individuals, and are remarkably free of many of the behavioral deviations and emotional problems that beset those who grew up under more conventional rearing systems, in and out of Israel (Rabin, 1965; Bettelheim, 1969).

In any child-rearing situation--whether institutional, Day Care, or nuclear family--selected aspects can be extracted and evaluated in their relation to the child. Among the more salient of these aspects are: the stimulating qualities of the environment, the type of contact with the parent, the function of the caretaker, and other associations available to the child. These aspects are examined one by one in the following sections

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Some variations in the children's sleeping arrangements exist among Kibbutz settlements of different ideological affiliations. However, these deviations do not basically alter the current presentation.

and, where possible, are evaluated in terms of available concrete information. We have at our disposal empirical data which were collected in the course of an extensive observational study involving child care practices in several Israeli environments, including the Kibbutz (Gewirtz and Gewirtz, 1968, 1969). The study pertains only to the first year of life. However, given the importance ascribed to the early mother-child bond and the infant's complete physical dependence during that period, the data could be illuminating, by implication, for later years in the child's life. Selected observations from this study are incorporated into the sections which follow and discussed where relevant. In addition, a small sample of data has been adapted for this review and is shown in Table 1 (p. 43).² It includes indices for Environmental Stimulation (categories #4, 5, 6, 7) and for Parent-Child Centers (#8, 9, 10, 12, 13, 14) which are discussed in this review. In addition, the Table includes a few general Time-Division indices (#1, 2, 3, 11). These could serve to provide background information against which to evaluate the more specific indices.

Abundance of stimulating experiences in the environment. The "life space" of the Kibbutz child encompasses a gradually expanding world which represents a relatively harmonious mixture of novelty and familiarity. Even during his first year, the Kibbutz child is exposed to much more variety of stimulation in his physical and social surroundings than would be the case for an infant in a conventional setting. Our data show that Kibbutz infants see more people and are moved to more different locations during the course of a typical day than are city infants (and certainly more so than infants in residential institutions). Although "number of different locations," "shifts between locations," "number of people seen" are but gross observational categories, they literally index the amount of stimulus change the environment offers. An infant who spends many hours outdoors under the swaying trees with the scenery of farm life continuously moving by his crib does not need exciting mobiles to "stimulate" him. When toddlers are free to move around in large play yards or rooms designed exclusively for them, and when young children are allowed to explore their surroundings, they

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Comprehensive descriptions of sample, methodology, and data analysis are beyond the scope of this review but may be found in the references cited above (although most of the results have not yet been published). However, the following details about its method and sample are relevant to the results reported here: the subjects included two-, four-, six-, and eight-month-old infants, selected from three residential institutions, 21 Kibbutz settlements, and middle class urban families in which the mothers were not gainfully employed. Each infant was observed for one full day (about 12 hours) in his natural environment, by a trained observer. A continuous record was kept of all contacts with various persons and caretaking activities (as well as behavioral interactions) which focused on the infant. All observation categories were predetermined and tested for reliability. The frequency, duration, and proportion measures given here were obtained by summarizing the relevant observation categories over the entire day. These indices are used to compare the "typical day" of infants raised under three different child-rearing systems. The figures given in Table 1 represent an average for all age groups within each environment. All figures refer to events which were observed and recorded during the infants' waking hours. Infants in residential institutions were continuously in the presence of peers as were Kibbutz infants, except during the "Children's hour" period. Nighttime attendance by parents (which exists only in the city homes) was not included in the observations.

TABLE 1

Selected Infant-Care Variables

Observation Category	Institution N=16		Fibbuz N=16	City Family N=16
1. Social ^{1/} - duration (in minutes)	397	*	208	262
2. Caring (CT) - duration	51	*	86	95
3. Feeding (FD) - duration	30	*	53	59
4. One Room/coral Area ^{2/}	.90	*	.57	.79
5. No. different locations	2.1	*	4.0	3.1
6. No. Location Shifts	12	*	26	17
7. No. different persons ^{3/}	0		7	5
8. Physical Contact - duration	10	*	20	12.5
9. Mother - duration	-		175	233
10. Father - duration	-		34	59
11. Caretaker - duration	358		146	-
12. No. Mother's Visits	-		16	28
13. Mother CT/total CT	-		.74	* .94
14. Mother FD/total FD	-		.77	.91

- ^{1/} Social Time: defined as when at least one person is present in the infants' vicinity (excluding siblings and peer-infants). Social Time includes Caring, Feeding, and Physical Contact. Caretaking Time includes Feeding, Caring, and Physical Contact.
- ^{2/} Proportion of time the infant spent in his own room out of the total period in the study. In all categories where the second category is the denominator.
- ^{3/} Not including siblings.
- ^{4/} The differences between the environments in the adjacent columns are at the $p \leq .05$ level or better.

are thereby encouraged to master skills and gain confidence in their abilities.

City living, on the other hand, forces a dichotomy in the child's world--in Israel as elsewhere. Outside the narrow limits of his home there is an alien world which is off limits to much of the young child's exploration. The young middle class child who ventures beyond "his" toys or "his" room meets invariably with many restrictions (the kitchen isn't safe, he might damage his parents' valuable belongings, etc.). The unsupervised ghetto child might indeed expand his world to include the neighborhood streets; however, he does so in a basically hostile environment, where many "pathological" behaviors are learned in the course of survival and where mastery does not inevitably produce a home or haven.

The difference between the Kibbutz and the city child applied to social objects as well. To the child in the conventional setting, most people--except those in his immediate family--are total strangers. The Kibbutz infant in contrast, becomes acquainted with many people other than family and caretakers, since they appear regularly in his surroundings. All the other infants' mothers visit in his room several times a day for the common nursing periods. The "other fathers" also come daily to the children's houses to pick up or deliver their own children. Adult Kibbutz members, in general, tend to stop by the cribs outside the infants' homes or by the toddlers' yards, and interact with the children. Gradually, as the child begins to roam around the various areas of the Kibbutz, all members of the community become familiar. A child is known to all through his caretaker and his parents. Similarly, a child gets to know any member in several capacities: as a friend of his parents, or as a parent of another child in the group.

Close parent-child contact. Kibbutz parents have a great deal of contact with their children. Contrary to common conceptions and despite the separate housing facilities, Kibbutz children are not raised as "institutional" children.

A cursory examination of the figures given above substantiates this point in a number of ways. First, the figures show that the Kibbutz child sees more of his mother than of his caretaker. This is due not only to the "pure social" period (i.e., when no instrumental caretaking such as feeding, bathing, and dressing is performed) but also to the fact that most caretaking is actually performed by the mother, especially feeding. This is the case at least during the first six months of the infant's life. To the figures shown above, it could be added that there is little difference between Kibbutz and city mothers with respect to the time they spend caring for their children when they are between two and four months old--despite the radically different residential arrangements in the two environments. Only during the second year does the Kibbutz caretaker take over complete caretaking responsibilities.

Second, contact between mother and child is spread over the entire day, and not reserved for the period before or after the mothers' working hours. While the total daily number of "visits" made by Kibbutz mothers to children is about half that of city mothers, each visit is longer ("looking in" on the infants actually requires a special trip between separate buildings in the Kibbutz). Furthermore, most of these Kibbutz visits occur before 4 P.M., when mothers take time off, during working hours, to visit their child in his quarters. Since even eight month olds are visited six times per

morning, such visits are obviously "beyond the call of duty" i.e., more frequent than would be required for feeding alone (see e.g., Gewirtz and Gewirtz, 1968).

Third, breast feeding as a mode of feeding is accepted and encouraged in the Kibbutz even more than it is in the Israeli society at large. The data show that a higher percentage of Kibbutz mothers nurse their infants, especially during the first four months, than do city mothers. At the same time, Kibbutz infants also experienced more non-instrumental physical contact, as measured by the duration of "being carried" and "sitting in lap."

A fourth source of parent-child contact is the "children's hour." This is the daily late afternoon period when the parents spend one to two hours of sheer "togetherness" with their children, especially with the young ones. This period is defined and practiced as "times away from the children's house," whether it is spent in the parents' quarters (where children have a small but personal toy-corner of their own) or in strolling through the various outdoor areas of Kibbutz. Young children and infants are picked up by their parents at their respective "houses" and brought back for supper and bed, while older children come to their parents' room on their own. This practice is quite prevalent according to our observations. The majority of two month olds were taken on such family visits, as were all older infants. The duration of this afternoon "children's hour" with the parents averaged 35, 135, 110, and 120 minutes for the two-, four, six and eight month old infants, respectively, and the proportion of time this period was spent together outdoors increased with the infant's age. This trend continued for older children as well. The period of family interaction is more than a custom; it is an institutionalized routine, and as such it is integrated into both parents' and caretakers' working schedules.

The function of the caretaker. Just as the Kibbutz parents have more contact with their child than is commonly assumed under conditions of separate residence, so too does the role of the Kibbutz caretaker differ from that of the caretaker in conventional institution of Day Care settings.

It is generally agreed that the Kibbutz caretaker is much better trained, stays with the same children for a longer period and has fewer children in her charge than caretakers in other settings. But the differences go beyond these general features. The Kibbutz caretaker is in charge of the children's house, including all routine chores not directly pertaining to the child. Thus, she makes it possible for the mother to attend to her child exclusively in terms of his individual needs. By the time the child is eight months old, the caretaker performs about 45% of the feeding and 50% of all other caretaking acts. She takes over gradually until by the child's second year she handles all caretaking routines, while the mother's diminishing visits to the children's houses become purely social. This division of labor, however, by no means leaves the caretaker in a role of a subordinate who merely carried out someone else's orders. Her image in the Kibbutz is that of a professional educator who mediates between the Kibbutz community and the child, and socializes him to fit into its unique style of life. It is her active responsibility to train the children in basic habits of cleanliness, eating and cooperating within the group. She is an educational authority vis-a-vis the parent and may actually instruct the young mother in caring for her infant. But at the same time this caretaker is accountable to the Kibbutz education committees. These are elected by and represent the

total community of which the parents, in turn, are also members. This intricate balance of responsibilities is further accentuated by additional features of Kibbutz structure: most caretakers are also mothers of children in other "children's houses." Conversely, many mothers also have worked at one time or another as caretakers.

Thus, the division of labor between caretakers and parents goes far beyond simple "job assignment." Such a description might well characterize the more conventional urban setting, where the caretaking of the child would be the only point of contact between mother and caretaker, whether the latter is hired to work in one's house, a professional in a residential set up, or a nursery school teacher. But in the Kibbutz role division cannot be simply described or copied in terms of its overt routines. The pattern of child-rearing is not merely a matter of child care arrangements while mother works; it is in fact a miniature model of the adult collective for which the younger generation is being prepared.

The peer group. The importance of the peer group in the life of the Kibbutz child has been pointed out by many observers. It is a life-long association which is more enduring than contact with any others. It is the affiliation which determines where "home" is. The young Kibbutz child "visits" his parents, but returns "home" to the house he shares with his peers. The city child, in contrast, does the reverse: he returns home to his parents from a visit with his friends. Moreover, too early or intense dependence on a peer group is often seen as antagonistic to the middle class child's attachment to his home. The peer group may offer substitute attachment to the ghetto child with a disrupted family background. But only in the Kibbutz does the adult community itself exercise pressures on the young child, however subtly, to turn away from them and towards his peers. Thus, with the parents' own encouragement, the child in the Kibbutz bypasses the nuclear family and learns that the Kibbutz itself is his ultimate home.

Conclusions

In the preceding sections an attempt was made to spell out some of the subtler conditions which underlie Kibbutz child-rearing practices. What remains to be examined is the extent to which such conditions could contribute to the establishment of adequate facilities in this country. The differences between the Israeli Kibbutz and the American lower income ghetto population, in terms of social structure, economic conditions and ideological goals are radical and obvious. Direct comparisons of isolated caretaking features between such divergent environments would be highly misleading. Rather, each aspect of caretaking should be first examined in the context of its function within its own environment.

It is not the amount of time spent with or without the children that separates the Kibbutz mother from the city mothers, but rather what is done within this time. Strange as this may seem, the collective rearing of children actually frees the Kibbutz mother to devote her time more exclusively to her child. It would be difficult to imagine a city mother, employed or not, who could spend an unhampered play period with her child as a matter of daily routine. It is even more difficult to imagine the city father being able to set aside a regular daily period for interaction with his young children. Yet, this is possible within the "multiple-mothering" pattern of the Kibbutz, because communal living relieves the individual not only of child care

related chores, but of most other services which the individual city family is to provide for itself (e.g., earning a living, running a household, health, security, and entertainment facilities).

The successful division of labor between caretaker and mother is much more than a very careful integration of their respective work schedules. The authority of the caretaker and the parents' cooperativeness do not derive exclusively from the caretaker's expertise or training, but are, in part, due to the fact that all are equal members in an ideologically and socially binding community. The personal commitment of the members to collective goals is a product of years of indoctrination and preparatory experiences. It explains the many compromises and sacrifices that are constantly made at the level of the individual. Thus, Kibbutz membership is very much restricted to an "elite" whose background enables its members to find the greatest personal satisfaction in collective achievements. This explains the generally unsuccessful attempts that were made over the years to assimilate other segments of the population into the Kibbutz communities. Among these segments were recent refugees from war-torn Europe, as well as groups of children from disadvantaged neighborhoods of Israeli cities. Very little in the background of these children prepared them to be able to delay personal gratification and to find reward in working for communal goals. Such experiences should caution against imposing on children care-taking arrangements for which they are not psychologically equipped, however "ideal" these arrangements may appear to be.

The Kibbutz child's feeling of security and well-being are tremendously enhanced by the fact that (until a relatively advanced age) he is not even aware of an alien or hostile outside world. His "home" expands smoothly from the peer group to include all aspects of the community. The Kibbutz at large is where he belongs and it belongs to him. Hence, he is likely to be less vulnerable than the city child whose emotional ties are narrowly developed within the nuclear family. Moreover, the nuclear family can give only limited support to a child when it is itself an alien or disadvantaged child surrounded by a hostile environment.

Another feature unique to the Kibbutz is the geographical proximity of all the focal points in the child's life which are literally within his walking distance. All open spaces within which he learns the boundaries of his home are completely safe. This structure greatly facilitates the smooth division of functions between parents, caretakers and children. It would be hard to imagine such conditions in any of the urban communities which are most in need of child care services.

In summary, then, Kibbutz child-rearing must be understood as an integral part of that unique style of life. It is not possible to take selected parts of its communal practices and hope to implant them successfully in another setting. The structure and routine of the children's houses is an expression of the parent's community and their educational system and presents the ideology which they practice in their own collective life. Moreover, the Kibbutz itself must be viewed in the perspective of Israeli

society at large.³ Historically, it was very much part of the same social and ideological wave which led to the creation of modern day Israel; and to the present day, there is a continuous give-and-take between it and the rest of the Israeli society in all areas of life--economic, social, and cultural.

In this respect, the Kibbutz is quite unlike many of the other experiments in communal living which have emerged at different periods and different places, and barely left an impact. Though the Kibbutz may represent a Utopia within, it is not an escape from the national scene, nor is it a self-isolating community deliberately minimizing contact with the surrounding environment. This is perhaps what makes these collective communities so viable and so visible--far beyond the small fraction of the population they represent. This, too, may contribute indirectly but significantly to the successful rearing of their children.

Thus, finally, if there is a lesson to be learned from the "Israeli experience" it is, perhaps, precisely this: if child care services are to be successful, if they are to enhance the healthy development of children, if they are to help the parents improve their conditions of life--then such facilities must become integral parts of the communities they serve, where goals and responsibilities can be shared alike.

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This consideration has been overlooked in Bettelheim's (1969) otherwise many insightful observations. He repeatedly compares Kibbutz child-rearing--antecedents and consequences--with the American system while ignoring the Israeli non-Kibbutz background. Thus, many of his conclusions are misleading. For example, he claims that collective education was developed by Kibbutz founders as a solution to the egalitarian aspirations of the women and particularly their rejection of their own all too-engulfing family ties within the East European ghetto. In reality however this background, with many of its ensuing attitudes, was shared by most women of the same generation, who nevertheless chose to settle in the cities and raise their children in more conventional ways. Similarly misleading is his description of the personality characteristics of the young Kibbutz generation. He attributes these characteristics to the unique experiences of Kibbutz rearing, without bothering to look at Israeli youngsters who were born and raised outside the Kibbutz and to ask what they are like.

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Section D

THE NEED FOR DIVERSITY IN AMERICAN DAY CARE

Gerald S. Lesser

The strategy of comparing cultural groups has a long and valuable history in education and the social sciences. It is the only approach which permits us to differentiate those generalizations which operate transculturally from those acting only within the boundaries of a particular culture or set of environmental conditions. Cross-cultural comparisons have helped to clarify many social issues involving children--such as the effects of different child-rearing practices, differences in language development, the origins of achievement drives, etc.--and thus may be usefully applied to the study of the forms and functions of Day Care in our society.

Day Care in a Pluralistic Society

In countries other than the United States, Day Care usually reflects a given nation's effort to design the single, most effective program for its children. Such efforts are based on the assumption that the children are sufficiently similar so that once the best program is developed, it will be maximally effective for all or most of the children in that particular country. This assumption may be plausible in a relatively homogeneous society but is indefensible as a basis for defining Day Care programs in the United States.

Even when careful observations are available of Day Care facilities in other countries, it is difficult to apply these insights to programs in the United States because the forms and functions of Day Care are markedly more complex in a pluralistic society such as ours than they are in more homogeneous cultures. Our pluralism demands a Day Care system that provides a multiplicity of opportunities and programs fitted to the diversity of our children and families. This is an undertaking of unprecedented magnitude and complexity. Yet this effort must be made if our unique diversity is to be acknowledged so that a rational Day Care system can be constructed.

We must recognize that we can not rely on the relatively simple solution of locating a single arrangement which is applicable to all. Our effectiveness will lie in our ability to create options and alternatives which match the needs of the different children and families to be served.

A Brief Historical Perspective

The recognition of the underlying implications of our pluralism and the need to abandon the search for a single, "best" Day Care system is relatively new. For well over a century, the central function of education in our egalitarian society has been clear: to help to assimilate the waves of immigrants to this country, to provide them with the basic skills necessary to lead productive and dignified lives and to make them truly "American" in character and personality.

Time, education was long conceived as a leveling, equalizing institution which sought, democratically, to provide the same training to all. Only slowly, have we begun to realize that our view of education must somehow reconcile two of our society's fundamental but sometimes conflicting premises: equality (which inevitably reduces differences among individuals and groups) and freedom (which often produces and enlarges differences among individuals and groups).

Given the current impetus for Day Care on a mass scale, we are confronted with fundamental decisions concerning its proper functions in our pluralistic society. We can, of course, continue to stress the ideal of equalization which we obviously have never realized and have often misinterpreted to mean uniform education for all: however, the greatest weakness of this assumption is and always has been that it does not build upon the strengths which are inherent in the diversity of our peoples. It has, instead, helped to drain our human resources and added to the feelings of inferiority and superiority which have fostered many of the problems which beset our Nation.

If we are to take advantage of the strengths which our nation can derive from its cultural diversity, we must reexamine the functions of our educational and Day Care system. We should seriously consider a competing position which stresses the value of diversity and holds that education should provide freedom of opportunity for the maximum development of each group and each individual--whether or not group differences remain, enlarge, or disappear as a consequence.

Thus, our educational and Day Care systems seem to be faced with the choice of whether they should seek to equalize or to maximize the development of each group or individual. However the tension between the equalizing and maximizing role of education in general--and Day Care in particular--is not entirely new but presents some familiar dilemmas. Historically for example, we have identified for special treatment children who are gifted intellectually and we have provided special, additional compensatory education for poor children to enable them eventually to compete for jobs and thus escape from poverty. Neither practice is completely compatible with the democratic principle of equality. My contention is that we now must progress even further beyond the traditional principles of equalization and standardization. The very diversity of intellectual abilities, motivations, and needs among our children must be matched by a variety of opportunities and programs that will permit a true freedom of choice for each child and parent. Only in this way will the children and families from different social and cultural groups receive the Day Care services they require and deserve.

Such an approach will lead us to the complex question: "What Day Care programs work best for which families and children, under what conditions?" The latter poses several problems about the possible range of goals and methods of Day Care in this country, some of which will be discussed below.

The questions of whether Day Care programs should exist in this country and how they compare in effectiveness with other forms of child-rearing will not be considered here. Our analyses of Day Care too often have been fruitless because we have posed our questions in an "either-or" form.

Alternative arrangements are posed in a competing framework: e.g., either we should work with the child's mother at home to improve the quality of child care, or we should make Day Care facilities available; either our goals should be custodial, or they should be educational; Day Care containing educational elements should either teach cognitive skills or stress social development; if a cognitive emphasis is accepted, either the program should be highly structured and controlled, or it should be flexible and permissive, etc. Unless this "either-or" emphasis is abandoned, the mindless search for the single, best form of child care will continue, preventing us from addressing ourselves to the more constructive question of how to increase the range and varieties of Day Care to fit pluralistic needs.

For example, the Head Start (and Follow Through) programs have been criticized for their apparent ineffectiveness. While the visible effects are not always readily observable, the criticisms ignore the many forms of Head Start which have yielded both constructive effects and failures. There has been no effort to isolate the specific effects of different programs upon children of different backgrounds, abilities, and needs. If we were to analyze which children profit and which fail to profit from particular Head Start programs, we would be embarked upon a rational, promising approach to the development of early intervention programs.

Defining the Goals of Day Care

Currently our ideas about the goals of Day Care services remain unanalyzed, unresolved, and often whimsical. Instead of an objective, explicit attack on the questions of why our Day Care system exists and how our goals can be defined, Dyer (1966) suggests that we resort to "word magic" and the easy presumption that the goals already are given and only require implementation. The following is an example of how our institutions use "word magic":

The first goal in education for democracy is the full, rounded, and continuing development of the person. The discovery, training, and utilization of individual talents is of fundamental importance in a free society. To liberate and perfect the intrinsic powers of each citizen is the central purpose of democracy, and its furtherance of individual self-realization is its greatest glory (President's Commission on Higher Education, 1947, p. 9).

Dyer (1966) then describes the consequences of the failure of the larger educational system to define goals.

As you watch the educational enterprise going through its interminable routines, it is hard to avoid the impression that the whole affair is mostly a complicated ritual in which the vast majority of participants--pupils, teachers, administrators, policy makers--have never given a thought to the question why, in any fundamental sense, they are going through the motions they think of as education. In spite of the tardy recognition in a few quarters that there are some ugly situations in the schools of the urban

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ghettos and rural slums, the general attitude still seems to be that if we are spending 50 billion dollars a year on the education of 50 million children, and if over 40 percent of them are now getting to go to college, as compared with less than 20 percent of a few years back, then 'we must be doing something right,' even though we haven't the remotest idea of what it is. This blind faith in quantity as proof of quality is precisely the faith that, in the long run, could be our undoing (p. 13).

Such vague statements of educational and child care goals are useless as a guide to establishing programs. This type of goal formulation has led to criticism and disillusionment about any effort to specify what we either are or could be trying to achieve in our educational and Day Care institutions.

Some efforts have been made to specify the range of possible goals for our educational system. For example, Bloom (1956), and Krathwohl, Bloom, and Masia (1964) have provided taxonomies which "classify and order responses desired outcomes of education" in the cognitive, affective, and psychomotor domains. In their comprehensive classification of educational goals, several hundred possible outcomes are ordered and defined in behavioral terms. An even more comprehensive system would include not only desired but undesired outcomes--unintended outcomes to avoid as well as intended ones to seek. Similar analyses of the range of possible goals for our child care services are needed.

Universal and "Particular" Goals in Day Care

It is necessary to distinguish universal from particular goals in matching Day Care programs to the diversity of our children and families. We accept in principle certain universal goals--for example, literacy--that we expect each child to achieve in our education system. We do not expect each child, however, to play the violin, become an architect, or a poet; these are particular goals defined by the child's aptitudes and interests and the social forces at work in his particular environment.

There are other examples of universal and particular goals relevant to Day Care programs. Surely all Day Care services should seek to provide optimal medical, dental, and nutritional care for children, and this objective must be regarded as a universal goal. Other plausible universal goals are more abstract, such as fostering the child's ability to explore, learn about himself and his surroundings, sustain attention, and concentrate persistently upon his environment.

Having argued for basic medical and health services as a universal goal for Day Care, the question arises as to whether similar services should be provided to the older siblings and even parents of those children attending Day Care programs. If these basic services cannot be provided in other ways, it is plausible to argue for their inclusion as particular goals for those Day Care programs serving families in need of basic health care. Similar considerations might be given to providing other educational or social goals.

The recognition of pluralism not only demands that we find goals best

fitted to each child's background and needs but also those suited to his parent's aspirations for him. For example, certain cultural groups believe that their children can best enter society on equal competitive terms if they learn early the basic cognitive skills required in our educational system. Other cultural groups believe that the most crucial task for them is to create a sense of hope in their children--hope that their own efforts and accomplishments can win them a constructive and respected place in our society. Many other particular goals can be specified as important to certain groups but not to others. Day Care programs must value these various goals and find ways of being directly responsive to them. This approach can alleviate the possibility of a rigid or patronizing orientation in the provision of Day Care services so that services will neither compromise the feelings of pride of particular cultural groups nor enhance their resentments over impersonal and condescending treatment by the "system."

Thus, the concept of diversity among children generates several practical implications for the goals and methods of Day Care: (1) when basic, universal goals of Day Care can be identified, different strategies for their delivery may be required to fit the different orientations among groups in our society and, (2) when different groups value special particular goals for their children, several program options must exist to supply these objectives--options that respect the backgrounds and aspirations of these groups.

Adapting the Goals and Methods of Day Care to the Diversity Among Children: Some Examples

Since most of our energies thus far have been misdirected in the search for the best, single type of program, no clear precedents in research and child observation have emerged to guide the development of the needed range of Day Care programs. Certainly, numerous and varied programs do exist both in this and other countries, including home-care groups, middle class nurseries, industry-based Day Care centers, 24-hour communal care programs, and so forth. Purposes range from purely custodial care to highly ideological and educational programs. However, the development of a rational system of Day Care options, and the matching of that system to the differing needs and aspirations of individuals and groups has not yet begun to appear.

A few precedents which suggest the possible form of this rational system of options exist in research on the development of diverse abilities in children somewhat older than Day Care populations:

- (1) In teaching beginning reading skills, instruction using the "phonics" method seems more effective with children of low initial language ability, while higher-ability children profit more from the "whole word" method (Snow, 1968).
- (2) Children who are high in "conceptual level" profit more from flexible instructional programs that permit them to act autonomously, while students low in "conceptual level" progress more effectively in clearly-organized structured instructional programs (Hunt and Hardt, 1967).

- (3) Data comparing the effects of televised and live instruction on children of different intellectual levels, indicate that televised instruction is more effective than live instruction for children at both high and low I.Q. levels; however, no differences appear between televised and live instruction for children in the middle range of intelligence. Television's effectiveness among low I.Q. children apparently rests on its capacity to rigorously organize material and to focus attention on salient aspects of the content to be learned. For the high I.Q. children, television seems to be able to present more information per time unit than live presentations (Snow and Salomon, 1963).
- (4) Although the overall impact of Head Start has been disappointing, the effects upon urban, Black children in full-year Head Start programs are far more encouraging (Smith and Bissell, 1970). For these particular children, the special forms of training offered at full-year Head Start centers seem especially valuable.

Many other examples of matching educational programs to the ability differences among school-age children exist and are summarized elsewhere (Lesser, in press).

The special effects of the television program Sesame Street upon certain young children (primarily three to five year olds) illustrates the principle of creating a range of education and entertainment experiences fitted to the needs of particular children. Sesame Street has relied heavily upon repetition of its sequences designed to teach certain basic language and numerical concepts. This repetition is sprinkled with surprises and incongruities, but basically the repetition of familiar material is stressed as critical to the learning of young children. Although the repeated sequences are sufficiently entertaining to hold the attention and to teach most viewing children effectively, this paradigm has a differential impact on children. A considerable amount of anecdotal evidence indicates the especially powerful effects of repetition upon children who are slow learners, even those previously diagnosed as severely "mentally retarded."

A significant by-product of the obvious ability of children to learn from repeated televised sequences is the effect upon parent and teacher expectations and attitudes toward these children. Since parents and teachers can actually observe these children in the act of learning, and can see the joy that they experience in acquiring knowledge, adults begin to treat the children differently, set higher expectations, and develop more hopeful and constructive attitudes toward their children's development.

Group Characteristics and Day Care Programs

Another example of differential program effects on different children stems from recent experimental work on youngsters from different cultural backgrounds. Farnham-Diggory (1970) indicates that her experimental evidence is consistent with observations made by preschool teachers:

Teachers in white, middle-class preschools sometimes express the view that children will learn more if left alone. Teachers in Head Start preschools may express the opposite view--that special teaching

is imperative if cognitive development is to occur. Perhaps this difference between teachers arises from real differences in the way their respective black and white pupils have responded to teaching procedures that are analogous to our experimental pretraining procedures. Black children may be helped by such teaching; white children may not be (p. 73).

Other similar suggestions have been made for different approaches to children from different groups. Following an extensive analysis of early childhood development, Kohlberg (in press) suggests that since "culturally disadvantaged" children often live in constant peer contact with their siblings, spontaneous peer group instruction in Day Care programs may be less important to them than opportunities for solitary, undisturbed task activity. In contrast, constructive peer interaction in Day Care programs may be more essential to the development of middle class children.

Parental Desires and Day Care Programs

Alternative Day Care programs must be constructed not only around the particular abilities and needs of young children, but also around the needs and desires of their parents as well. Some parents may prefer that their children attend a Day Care facility in a school, church, or home; others may prefer that the facility be near or in the factory or business in which they work, or in a store-front in their neighborhood. Some parents need full time Day Care for their children; others need part time, evening, or overnight facilities. Parents will differ in their preferences for the types of language training to which the child is exposed: some Black parents, for example, may prefer that their children be exposed to standard English (in the effort to enhance their chance of later success in school); others may prefer that the child be exposed only to the language of his home and neighborhood (in order to reduce the confusion for the child and to foster a respect for his own culture and language); still others may prefer that the language to which the child is exposed include elements of both standard English and the local dialect (in an attempt to create a bilingual capability which will permit both success in school and pride in his own culture).

All of these and other preferences lay equal claim on our Day Care programs. One of the most common and justified criticisms of our current educational system attacks its fixed, inflexible, immobile character--"lock step" features that are well documented. In contrast, a Day Care system which contains multiple options and opportunities would represent an experimental, constantly self-monitoring and self-correcting approach that has been clearly absent in our present Day Care and educational programs. Such a Day Care system will change as the needs and aspirations of children and families change, rather than remaining forever fixed in its original form.

Day Care in Context: Employment, Housing and Politics

Many child care programs have been justifiably attacked for being self-contained and for ignoring the manner in which they reinforce or

conflict with other aspects of the child's environment. For example, the early efforts to create viable Head Start programs often failed to consider the nature of the later school experiences into which children would move after they completed their Head Start programs. It was not surprising, then, that whatever gains were made by children attending Head Start programs were not sustained when they progressed into Kindergarten and elementary school classes which were not adapted to the prior experiences of the Head Start children. In a similar fashion, Day Care programs may fail to consider their functions in the larger system of education.

An analogous but even broader concern is Day Care's role in the larger social system of employment, housing, and political activity. No single public service--including Day Care--can possibly succeed unless it recognizes and adapts to the changing patterns of employment, housing, and political developments. We already have mentioned the importance of building self-correcting, self-monitoring mechanisms into our Day Care programs. These corrections and modifications must respond to changes among people in the jobs they hold, the neighborhoods in which they live, and the political influences that affect them. When a Day Care system is viewed as fitting the needs and aspirations of individuals and groups, the major social forces that affect these needs and aspirations--education, employment, housing, and politics--are essential ingredients in any viable plan of child care services.

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CHAPTER 2

DAY CARE IN AMERICA

Irving Lazar and Mae E. Rosenberg

INTRODUCTION

Communal care of children has probably existed throughout man's history and within all societies. It ranges from informal, fortuitous groupings of children within a geographic setting, monitored by the watchful eyes of women pursuing their daily chores, through a variety of increasingly more formal arrangements, to the highly structured programs found in the Israeli and Soviet societies.

It is evident that a multiplicity of forces within our society are converging to exert pressures for the establishment of publicly funded and managed child care programs. These include the society's legitimate concern for the optimal development of children of less advantaged circumstances, the need for husbandless mothers to earn their family's livelihood, the desire of increasing numbers of mothers in the more affluent sectors of society to seek employment, and the demands of the "Women's Liberation movement."¹

Ultimately, assuming the continuation of current trends, publicly supported Day Care programs may become available to all families desiring such services. Some, cognizant of the need of many children for more adequate and comprehensive care, welcome this trend; others, mindful of the current state of knowledge regarding child development processes, raise questions concerning a major governmental role in child care. It is essential, therefore, that we know a good deal more about where we have been, where we are, and where we are going in Day Care. This chapter will present an overview of Day Care in our country, relating briefly its historical antecedents, its current distribution and some programmatic examples.

HISTORICAL BACKGROUND

Worldwide and historically, the treatment of children has been largely repressive, harsh, and cruel (Helfer & Dempe, 1968, pp. 3-16). Fortunately, however, there have been bright spots in child-rearing attitudes and practices. Over the centuries, there were those who spoke of the value of early education of children and espoused more gentle

¹ Not to be ignored are the manpower implications of publicly supported Day Care. Care of one million children can produce a quarter of a million new jobs with comparatively small capital investment.

training and treatment. As a result of their efforts, two relatively distinct Day Care movements have emerged in this country. One resulted in the establishment of nursery schools and Kindergartens, largely under private auspices for the pre-school children of the upper and middle classes; the other involved a cyclic expansion and contraction of publicly and philanthropically supported Day Care programs for the children of working mothers and of the poor.

Each movement had different purposes and perspectives: the nursery schools and Kindergartens provided an enriched learning and recreational environment for middle and upper class children with their peers, usually for no more than three hours a day; whereas the Day Care programs for the children of the poor were held for long hours of the day and were mainly custodial and protective in emphasis. However, the privately organized, philanthropic programs for poor children attempted a blend of the two approaches. These philanthropic programs ran for the long hours of the mother's work day but they also provided some measure of enriched experiences for the children. For example, the primary goals of the settlement house programs were that children of immigrant families learn the English language and adapt to the American culture.

1. The Development of Nursery Schools and Kindergartens

The nursery school and Kindergarten movement followed from the efforts of Comenius and Froebel and their later and present-day counterparts in early childhood education. Following in the same intellectual tradition, two women, Maria Montessori and Margaret McMillan focused their efforts on children of economically poor families. Montessori and McMillan can be considered among the progenitors of such programs as Project Head Start, which reflects our special concerns as a society for our disadvantaged children.

Three hundred years ago, John Amos Comenius, a Moravian Educator and theologian (1592-1670) wrote a history of early childhood education in which he proposed that children spend the first six years of their lives in a "School of Infancy" with a sensitive and knowledgeable mother as their teacher. He felt that the simple lessons a child learned in such a school would lay a sound foundation for his future life.

In the early nineteenth century, Frederick Froebel (1782-1852) formulated the bases for present day Kindergartens. His book entitled The Education of Man emphasized spontaneous free play as the basis of learning, the importance of self-activity and motor expression, social cooperation as the core of the curriculum, and the need for special toys and equipment to stimulate learning through manipulation and action. By the late nineteenth century, Froebel's Kindergarten idea had gained the support of active groups in Germany and the United States. In 1868, a training institute for Kindergarten teachers opened in Boston, and a few years later, the first tax supported public Kindergarten opened in St. Louis, Missouri.

By the 1920's, early childhood education had become established within American institutions of higher learning. Leading universities sponsored

child development laboratories and model nursery schools, concentrating on the years between birth and six.

2. Day Care for Children of Poor Families

Maria Montessori's (1870-1952) concern for the welfare of poor children led her to develop special methods of instruction for children in the impoverished areas of Italian cities. She felt that early training of these children would both improve their later school performance and help them become better human beings. She utilized an individualized approach and stressed sensory training, manual skills, explorative experiences, and cooperative social behavior. Despite her early efforts to provide an enriched program for poor children, her ideas were adopted largely by middle class Europeans and Americans. This movement continues to grow and these schools still bear her name.

In England, humanitarian Margaret McMillan (1860-1931) founded the "open-air" nursery. She created garden spots in the heart of London for children from two to seven years old and stressed the values of sunshine, fresh air, baths, food, sleep, natural play, and low ratio of children to teachers. As a result of her efforts and those of Grace Owen, the Fisher Act was passed which established nursery schools in the English national school system in 1918.

The first nursery to be established in the United States was for the children of poor working mothers, founded by a philanthropic women's organization in New York City in 1854.

Historically in the United States, public support of Day Care programs was provided to meet national needs and not because of concern for children's welfare. Tax-supported efforts were related to conditions within the larger society rather than the special needs of children. Day Care services were funded by the federal government during both World Wars, when women were needed in the labor force, and during depressions, or to provide employment for husbandless mothers. For example, following the Civil War, tax-supported public kindergartens and day nurseries materialized to provide care for the children of war widows seeking employment. During the depression of the 1930's, Day Care centers were opened under the federal government's Works Progress Administration primarily to provide employment for unemployed teachers and domestic workers.

During World War II, the labor of women was essential to the war effort. Consequently, the crucial need for Day Care for children of working mothers became a national problem, spanning the social and economic classes.

In 1943, Congress passed the Lanham Act which granted federal funds for up to 50% of the costs of facilities for Day Care or extended school services for children of mothers employed in war areas. At their peak in 1945, these Day Care centers had enrolled 1.6 million children.²

² By contrast, we estimate that today, a quarter of a century later, there are but 1.3 million children in some type of Day Care arrangement even though our population has increased 40% in that period.

All the states except California placed Day Care programs within their departments of public welfare. California placed the program under its department of education.

When the war ended, the numbers of working mothers decreased rapidly and Day Care centers around the country were closed as federal funds disappeared. Californians, however, persisted in their demand for Day Care and kept many centers open, with parents paying approximately one-third the cost of service. Many of these centers, as well as additional ones, remain in operation today and are used primarily by the children of working mothers whose incomes fall within a certain range.

3. The Federal Role

The Children's Bureau, established in 1912, produced significant accomplishments in parent education, in bringing about basic reforms in society's treatment of neglected and dependent children, in child labor and delinquency, and studies of infant and maternal mortality. It laid the basic framework of much of the current research in child development (Bradbury, 1962).

Nevertheless, the federal effort was miniscule in relation to the need. It was not until the decade of the 1960's that the federal role in welfare and civil rights legislation, including Day Care, expanded greatly. An even more enlarged federal role appears to be on the horizon in the 1970's.

Part of this increased interest has nothing to do with children; it is an effort to find work for mothers. But a good deal of the interest is concerned with children and with a desire to use Day Care as a vehicle to promote the optimal development of each child. It is beyond the purview of this volume to undertake a comprehensive review of current federal programs for children. Such programs have proliferated, and there is barely a community in the United States that is not receiving benefits from these federal efforts for children. Of the quarter million children enrolled in Head Start this year, approximately one-third are in full Day Care programs, according to a Head Start official. In addition, approximately one thousand Community Action Agencies - almost all there are - report some support for local Day Care activities. The reader interested in a full listing, is referred to Federal Programs for Young Children, published in 1970 by the Appalachian Regional Commission, which describes over 200 separate federal activities.

4. Private Philanthropic Organizations

Over the years, a number of protective organizations on behalf of children were formed. Among these the Child Welfare League of America, Inc., has been active for almost 40 years in safeguarding the rights of children by developing and publishing standards for all social services relating to children, including Day Care. The League's most recent revision of its Standards for Day Care Service appeared in 1969. Another organization which has achieved growth and prominence over the past few years is the Day Care and Child Development Council of America, Inc., of Washington, D.C., which publishes a serial sheet entitled Voice.

5. Opposition to Day Care Services

Although part-day nursery schools, primarily under private auspices, continued to thrive as a part of the social experience of upper middle class children -- considerable professional opposition to full Day Care grew during the period following World War II, and continues to be voiced in some professional circles today. Case histories and clinical studies demonstrated the devastating effects of institutionalization upon infants, and these findings of permanent damage served not only to substitute foster home care of infants for foundling homes, but also brought about legislation prohibiting group care of infants in many states, and were generalized to cast disapproval of all full day group care of pre-school children.

These studies, and the popularization of psychoanalysis, were used to support a long standing belief among Americans that a mother's care of her own child is always superior to any other alternative. A major argument set forth in creating the Aid for Dependent Children program was that only a mother could properly raise her child, and that it was in the public interest therefore, to provide support for mothers so that they could stay home and not have to put their children into group care situations.

States still prohibit group care of infants, and many professionals still see group care as an unfortunate event to be avoided at all costs rather than an opportunity to enrich a child's life. It is not unusual even today to hear of mothers being told that any desire - or need - to work outside the home is a neurotic symptom of "rejection" of the woman's role!

THE NEED FOR DAY CARE

What are the dimensions of the need? It has become obvious that the estimated 46,300 licensed or approved Day Care or Family Day Care centers in the United States, able to serve but 638,000 children, are woefully inadequate to the need (see Tables 1 and 2 for the state by state breakdown). There are millions of children of very poor families, children of working mothers (5 million of whom are of pre-school age) and handicapped children who may benefit significantly from appropriate Day Care services.

Over one-fourth of our population in 1970 - or 55,000,000 - are children under fourteen years of age. In each year of this decade, four million children will be born. Therefore, during the decade of the 70's, nearly 100,000,000 different children -- millions of them disadvantaged -- will be moving through the various developmental stages from conception through 13 years of age (Profile of Children, in press).

Each of these one-hundred million children will participate in publicly funded programs -- the largest and most pervasive being the public school system. But the most costly to society -- in lost human resources as well as in dollars -- are in such institutions as prisons, mental hospitals, drug addiction centers, etc. A reassessment of our priorities to provide adequately for the needs of our young may reduce the growing rates of pathology among our children.

Any publicly funded Day Care program may eventually be called upon to provide services to any family that desires it for whatever reason -- on a fee for service basis for those able to pay. However, the child populations at special risk that require priority attention are: (a) many of the children of economically poor or near-poor families, which include children of migrant families and of racial and ethnic minority groups; (b) the untended or inadequately cared for children of working mothers; and (c) children with emotional, mental and physical handicaps. These are not necessarily distinct populations, but are frequently overlapping. How many children fall into each of these groups?

1. Children of Economically Disadvantaged Families

More than ten million of our children live in poverty, three million of whom are under six years of age. Six million are white and four million are Black or of other races (Profile of Children, in press).

Among white families in 1969, 4.5 million - or 17% - had incomes of less than \$6,000, whereas 1.7 million Black families - or 52% - fell below the \$6,000 annual income level. Poor families were more likely to be found in the southern states than elsewhere, and, despite their increased migration, almost 40% of poor Black families are still in the south (U.S. Bureau of the Census, 1969).

In January 1970, five and a half million children lived in families receiving public assistance under Aid to Families of Dependent Children (AFDC) of whom 32.5% were under six years of age. Of these families, 80% were fatherless; 12% had fathers with physical handicaps; and 5% had fathers employed only part-time. In 1960, children in AFDC families numbered less than two and a half million, and in 1950 only one and a half million.

Further, it is estimated that the majority of Black, Puerto Rican, Mexican-American and Indian children live in acute poverty. For example, American Indian families had an average income of only \$1,500 in 1967, and Puerto Ricans in New York City constituted one-half of all its families in poverty in 1964, although they represented less than 10% of the population (Joint Commission on Mental Health of Children, 1970; p. 187).

It is these children who exhibit the highest rates of malnutrition, poor health, emotional problems, mental retardation (with no known organic cause), and later, delinquency, reading problems in school and high school drop-out rates.

An appropriate comprehensive Day Care program, begun in pre-school years, may ameliorate or prevent many of the conditions that lead to outcomes that are dysfunctional both for these children and for the society.

2. The Children of Working Mothers

Mothers with children under 18 years of age constitute 39% of the total female working force. In March 1969, 11.6 million mothers were working -- the highest number ever recorded -- and the number continues to climb.

Table 1 (Continued)

	Total		Public		Voluntary		Independent	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity
Nebraska	36	987	6	150	8	230	22	607
Nevada	44	2,016	2	152	2	300	40	1,564
New Hampshire	134	3,917	--	105	132	3,812	--	--
New Jersey	488	15,326	4	4	4	4	4	4
New Mexico	26	667	1	20	8	304	17	343
New York	<u>5/ 440</u>	<u>5/19,879</u>	2	126	<u>5/ 229</u>	<u>5/12,751</u>	<u>5/ 209</u>	<u>5/ 7,002</u>
North Carolina	332	12,192	2	26	173	7,725	157	4,441
North Dakota	9	200	1	10	3	82	5	108
Ohio	95	3,517	2	50	87	3,455	6	12
Oklahoma	399	9,344	--	--	56	3,028	343	6,316
Oregon	151	4,496	--	--	26	1,311	125	3,185
Pennsylvania	216	7,169	111	3,670	62	2,493	43	1,006
Puerto Rico	162	5,648	133	1,428	11	263	118	3,957
Rhode Island	22	1,126	--	--	18	851	4	275
South Carolina	188	7,566	14	528	6	815	168	6,163
South Dakota	2	65	--	--	1	45	1	20
Tennessee	684	24,969	<u>4/</u>	<u>4/</u>	<u>4/</u>	<u>4/</u>	<u>4/</u>	<u>4/</u>
Texas	1,553	56,690	--	--	396	20,311	1,157	36,379
Utah	65	2,569	--	--	--	--	65	2,569
Vermont	29	694	6	215	7	220	16	259
Virgin Islands	12	293	5	160	6	118	1	15
Virginia	238	11,335	2	85	118	5,626	118	5,624
Washington	133	5,398	--	--	68	2,823	65	2,575
West Virginia	33	957	--	--	14	502	19	455
Wisconsin	154	3,924	7	472	98	2,352	49	1,100
Wyoming	34	759	--	--	9	245	25	514

1/ Total includes 1,200 Centers with a capacity of 39,700 children which were not reported by auspices

4/ Not reported

5/ Incomplete

Source: U.S. Department of Health, Education, and Welfare, Office of Child Development (unpublished information)

Table 1

Licensed or approved Day Care centers, by auspices and capacity, by State, March 1969 (provisional)

STATE	DAY CARE CENTERS						
	Total		Public		Voluntary		Independent
	Number	Capacity	Number	Capacity	Number	Capacity	
United States estimated total 1/	13,600	518,000	730	34,700	4,100	178,000	7,600
Alabama	237	9,721	71	3,200	50	2,172	116
Alaska	14	427	--	--	5	152	9
Arizona	342	15,600	--	--	136	6,200	206
Arkansas	98	3,642	51	1,808	27	1,158	20
California	2,220	97,050	336	19,200	918	37,730	966
Connecticut	366	9,683	8	280	192	5,427	166
Delaware	59	2,386	--	--	31	1,498	28
District of Columbia	154	5,628	--	--	22	812	132
Florida	365	21,313	--	--	102	7,058	263
Georgia	677	27,438	--	--	161	7,923	516
Hawaii	147	7,654	--	--	88	4,468	59
Idaho	18	563	--	--	--	--	18
Illinois	414	16,963	15	835	150	6,922	249
Indiana	59	2,445	1	75	37	1,701	21
Iowa	98	3,180	23	1,082	29	847	46
Kansas	128	2,784	6	160	37	1,197	85
Kentucky	305	7,466	--	--	100	876	--
Louisiana	220	6,717	6	194	54	2,484	160
Maine	21	990	--	--	10	611	11
Maryland	763	29,591	10	434	1	33	752
Massachusetts	123	3,920	--	--	44	1,759	79
Michigan	365	18,423	1	30	217	11,005	147
Minnesota	61	1,857	--	--	--	--	61
Mississippi	7	202	2	50	--	--	5
Missouri	270	10,371	2	90	97	3,783	171
Montana	24	787	--	--	--	--	24
							787
							29,124
							2,161
							7,388
							1,857
							152
							6,498

March 1969 (provisional)

Licensed or approved family Day Care homes, by auspices and cap...

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Table 2 (Continued)

	Total		Public		Voluntary		Independent	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity
New Jersey	131	295	131	295	--	--	--	--
New Mexico	<u>5/</u> 37	<u>5/</u> 92	37	92	--	--	<u>4/</u> 103	<u>4/</u> 497
New York	132	4,183	1,093	3,340	125	346	32	172
North Carolina	34	183	--	--	2	11	19	51
North Dakota	19	51	--	--	--	--	--	--
Ohio	63	197	63	197	--	--	--	--
Oklahoma	178	640	111	305	--	--	67	335
Oregon	6	31	--	--	1	5	5	26
Pennsylvania	917	3,387	--	--	<u>4/</u> 110	<u>4/</u> 601	<u>4/</u> 110	<u>4/</u> 601
Puerto Rico	110	601	--	--	--	--	--	--
Rhode Island	70	235	20	49	3	10	47	176
South Carolina	148	1,752	--	--	--	--	148	1,757
South Dakota	26	75	--	--	--	--	26	75
Tennessee	147	11	<u>4/</u> 49	<u>4/</u> 49	<u>4/</u> 307	<u>4/</u> 1,451	<u>4/</u> 911	<u>4/</u> 4,326
Texas	1,218	5,777	--	--	--	--	267	842
Utah	267	842	--	--	--	--	29	246
Vermont	29	246	--	--	--	--	--	--
Virgin Islands	1	6	--	--	1	6	--	--
Virginia	546	1,765	--	--	--	--	546	1,965
Washington	4,042	13,526	--	--	--	--	4,042	13,526
West Virginia	30	89	30	89	--	--	--	--
Wisconsin	--	--	--	--	--	--	--	--
Wyoming	71	104	--	--	--	--	71	104

2/ Total includes 2,000 homes with a capacity of 8,400 children which were not reported by auspices.

4/ Not reported

5/ Incomplete

Source: U.S. Department of Health, Education, and Welfare, Office of Child Development (unpublished data).

By contrast, only 1.6 million mothers worked in 1949, and only 3.0 million mothers worked in 1959. Of married women with husbands present, 56% of white mothers with children under six years of age were working while 91% of Black (or other race) mothers with children five years and under were working (U.S. Department of Health, Education, and Welfare, 1969).

Although mothers of young children tend not to work, recent data show that more than one of three working mothers, or 4.2 million women, had children under six years of age. Over two million working women had children under three years of age. Sixty two percent of Black mothers of children aged six to 17 years were in the labor force, as compared with 50% of white mothers. Also, 45% of Black mothers of children under six years of age were in the labor force as compared with 28% of white mothers (Waldman, 1970).

Mothers enter the labor force for a variety of reasons, of which the most compelling is economic. Recent Department of Labor data showed that when the husband's income was less than \$10,000, 52% to 56% of their wives with children aged six to 17 years worked, in contrast to 38% of wives whose husbands earned over \$10,000 per year. For mothers with children under six years of age, 28% to 33% worked when their husbands earned under \$10,000 as opposed to 18% of mothers whose husbands earned \$10,000 or more. In fatherless families, the mother's income is essential to sustain the family and these women constitute the largest proportion of working mothers.

3. Children with Mental, Emotional and Physical Handicaps

It is estimated that of the almost six million handicapped children in the United States, 3.7 million -- or 62% -- are not receiving needed special education. Table 3 indicates the number and percent of children served by state, and Table 4 shows the number and percent of those receiving services by handicapping conditions.

In addition to these child populations at risk, there are a variety of life circumstances that may make a Day Care experience imperative for a child: death or illness of his principle caretaker, crisis situations within the family, emotional disturbances, lack of peers with which to play and learn, etc.

Finally, the proliferation of child care arrangements -- under all manner of private and public auspices -- attest to the growing demand and need. Present arrangements range from child "parking" while mother shops or participates in a course of study for an hour, to a hospital-or-industry-provided center for children of its nurses or employees. The question then arises as to the extent of society's responsibility in meeting the need or monitoring the situation so that the welfare of the children involved is safeguarded.

DAY CARE DEFINED

Many people view Day Care as confined largely to the physical care of children of poor families as distinct from the programs of nursery schools and Kindergartens which were devoted largely to the cognitive and social-emotional development of middle class children.

Table 3

Handicapped Children: Served and Unserved (Age Unknown) March 1970

	Number of Children Served School Year 1968-1969	Number of Additional Children Needing Services	Total Handicapped Children	% Served
TOTALS	2,251,653	3,662,558	5,914,211	
1. Alabama	12,053	120,000	132,053	10
2. Alaska	1,185	5,450	6,635	17
3. Arizona	11,597	20,360	31,957	36
4. Arkansas	11,677	78,857	90,534	13
5. California	243,985	286,704	530,689	46
6. Colorado	30,676	36,245	66,921	46
7. Connecticut	32,073	37,925	69,997	46
8. Delaware	6,074	5,536	1,610	53
9. District of Columbia	9,885	2,345	12,180	82
10. Florida	66,747	65,198	131,945	51
11. Georgia	26,892	57,226	84,118	32
12. Hawaii	8,021	15,581	23,602	34
13. Idaho	4,574	13,528	18,102	26
14. Illinois	135,561	140,006	275,567	49
15. Indiana	55,945	85,285	181,230	43
16. Iowa	56,253	60,995	117,248	48
17. Kansas	24,461	70,766	95,227	26
18. Kentucky	23,745	54,631	78,376	30
19. Louisiana	35,996	173,294	209,290	17
20. Maine	6,914	33,520	40,434	17
21. Maryland	53,256	55,351	108,607	49
22. Massachusetts	62,270	74,237	136,507	46
23. Michigan	140,217	147,000	287,217	49
24. Minnesota	60,252	41,149	101,401	59
25. Mississippi	10,563	92,546	103,109	10
26. Missouri	51,975	103,300	155,275	33
27. Montana	3,137	7,266	10,403	30
28. Nebraska	17,975	112,170	130,145	14
29. Nevada	2,790	9,824	12,614	22
30. New Hampshire	2,991	14,025	17,016	18

	Number of Children Served School Year 1968-1969	Number of Additional Children Needing Services	Total Handicapped All Ages	% Served
31. New Jersey	38,497	111,303	150,000	26
32. New Mexico	7,033	35,775	42,808	16
33. New York	111,363	210,304	422,667	50
34. North Carolina	59,380	98,900	158,080	33
35. North Dakota	7,375	23,570	31,145	24
36. Ohio	108,345	265,755	374,100	29
37. Oklahoma	14,810	76,215	90,833	16
38. Oregon	12,814	18,342	36,353	50
39. Pennsylvania	161,822	293,998	455,820	35
40. Rhode Island	9,139	39,000	48,139	19
41. South Carolina	12,191	101,280	129,411	22
42. South Dakota	3,947	10,672	14,614	27
43. Tennessee	37,921	50,244	88,165	43
44. Texas	129,735	130,265	260,000	50
45. Utah	23,063	16,340	39,403	59
46. Vermont	2,661	8,084	10,143	20
47. Virginia	35,285	60,484	95,767	37
48. Washington	59,166	17,808	76,974	77
49. West Virginia	6,101	5,917	12,015	51
50. Wisconsin	75,558	58,332	133,890	57
51. Wyoming	4,662	9,150	13,812	34

Age unknown but it is estimated that the largest number are between five and 17 years of age, but it includes some from 0 to 21 years.

Source: U.S. Department of Health, Education, and Welfare, Office of Child Development.

Profile of Children: White House Conference on Children, 1970 (in press).

Table 4

DATA CONCERNING STATE SPECIAL EDUCATION PROGRAMS FOR HANDICAPPED
1968-1969 SCHOOL YEAR*

Handicapping Condition	Total Number of Handicapped Children	Handicapped Children Receiving Services		Estimated Handicapped Children Not Receiving Services	
		Number	Percent	Number	Percent
Mentally Retarded	1,338,866	703,821	53	635,045	47
Hard of Hearing	260,981	44,430	17	216,551	83
Deaf	45,681	20,771	45	24,910	55
Speech Impaired	2,145,647	1,122,232	52	1,023,415	48
Visually Impaired	64,718	22,718	35	42,000	65
Emotionally Disturbed	749,441	99,400	13	650,041	87
Crippled	183,892	63,450	35	120,442	65
Other Health Impaired (includes Learning Disabled)	1,089,147	165,589	15	923,558	85
Multihandicapped	35,838	9,242	26	26,596	74
Totals, U.S.	5,914,211	2,251,093	38	3,663,118	62

* Based on Data VI-A of the Elementary and Secondary Education Act Annual Reports for fiscal year 1969 received from State education agencies in the 50 States and the District of Columbia.

Age unknown, but it is estimated that the largest number are between five and 17 years of age, but it includes some from 0-21 years.

Source: Profile of Children: White House Conference on Children, 1970 (in press).

Increasingly, however, Day Care has come to be viewed as an opportunity for the community to support and supplement the parental child-rearing role by providing comprehensive services to children which potentiate their full intellectual, social, emotional and physical development. Since all children have similar developmental needs, it is felt that all child programs should encompass similar essential elements. However, this in no way precludes variations in program emphasis consistent with the special requirements of the child and parent population being served.

Thus, Day Care refers to any public or privately sponsored program, which provides for the care of pre-school or school-age children (when not in school) by someone other than adult members of the child's own family, in whatever setting it takes place, whether in an institution, Family Day Care arrangement, foster care, Day Care center, etc. The Day Care programs are expected to be sufficiently flexible and comprehensive to meet each participating child's unique physical, intellectual, emotional and social needs, be appropriate to his developmental stage, and involve and support the child's parents or caretaker.

DAY CARE DESCRIBED

There is tremendous variability in Day Care programs in terms of the number of hours they operate, the ages of the children served, their focus and purpose, their physical location, and their auspices. Obviously programs differ in terms of these variables.

1. Hours of Operation: While normally full Day Care centers are open from ten to twelve hours a day, many provide shorter periods of care.
2. Ages: Most states prohibit group care of children under two years of age, although this is changing. Some centers, on the other hand, do provide for after school care of children over six.
3. Focus and Purpose: Full Day Care is typically custodial care; providing a safe place, some food, and supervised play, with little in the way of educational and supplementary services.

Since 1965, Operation Head Start has developed full Day Care services in many communities, in addition to its part-day and summer programs. These include nutritional, health, cognitive and social-emotional components designed as compensation activities. The content of these programs varies considerably, however.

Nursery and Kindergarten programs -- more frequently the pre-school resource of middle class children -- also have a learning component, but usually are permissive in approach, with an emphasis on promoting a good self-concept and more cooperative social relationships (Schloss, 1966).

Before-and-after-school care for school-age children provided by schools and other public or private organizations, is largely recreational and custodial in orientation. However, there are programs which provide study facilities and tutoring arrangements for children who need it.

Arrangements for children of job trainees -- under federal auspices -- are of variable quality, since there is at present a strong emphasis on Family Day Care homes, which may be unable to provide much more than custodial care.

4. Physical location: Typically there are three types of facilities that provide Day Care: a Family Day Care home, a group Day Care home, and a Day Care center. The Federal Interagency Day Care Conference (1973) indicates that the Family Day Care home -- with a mother of children in her own home -- is most suitable for infants, toddlers, and young children, especially if they have siblings in neighborhood-based programs. However, the federal regulations stipulate that no more than six children, including the Day Care mother's own children, should be in this type of setting.

A group Day Care home is useful for before-school and after-school care of school children. It may have more than one caretaker and care for up to twelve children in a home-like atmosphere (Gale, 1974).

The Day Care center is generally a separate facility, designed specifically for this use, and usually serves larger groups of pre-school children, typically no younger than two years of age.

5. Auspices: Day Care centers are proliferating at a rapid pace, sponsored by all manner of organizations. Although the federal government sponsors Project Head Start and other programs, Day Care services remain substantially a privately funded and operated effort.

Over 90% of all full-day centers in the United States are privately operated -- for profit. Most are custodial programs because that's all that most working mothers can afford. Head Start Day Care has been mentioned above. Day Care offered through Community Action agencies is not much different because, in part, those programs are operated at similar costs-per-child. The remaining Day Care programs are offered through a wide variety of auspices.

a. State and Local Governments: States and municipal governments are also sponsoring Day Care. San Francisco and Los Angeles have long done so; previously, in addition, New York State and Illinois have provided funds for Day Care facilities. New York City has begun the first child care program for low income and welfare mothers who work at night. It provides up to ten hours of care for five nights a week at no cost to the mothers. The pilot study upon which this service is based was reported upon as early as 1944 (Hymes, 1944).

Under the federal government's Community Coordinated Child Care (4-C) program, states and local communities are encouraged to coordinate their parent and child welfare services and efforts to provide more adequate Day Care for their residents. Up to 300 communities in all regions of the country are in various stages of this effort, and others are being started. Another approach to the coordination of resources for children is underway in eleven of the thirteen states that are members of the Appalachian Regional Commission. Comprehensive joint planning by the agencies responsible for state services to children is leading to experiments in the delivery of services according to children's individual

by local community groups. The extent to which these communities select Day Care services will provide the first large scale indicator of public desire for Day Care services of various types.

b. Unions: Various divisions of the Amalgamated Clothing Workers of America in Virginia, Maryland, Pennsylvania, and Chicago have already opened union Day Care centers and are in the process of establishing several more centers for children of their union members. The centers charge a small fee, and offer comprehensive services which include nutritional, health, social, and educational components (Perlis, 1966).

c. Industry: A few industries have opened Day Care centers for children of their employees. As a notable example, the KLM Research and Development Corporation, Cambridge, Massachusetts, established an industry-based Day Care program in July, 1968. It was funded jointly by the Corporation, the U.S. Children's Bureau, private contributions, and by fees paid by parents on a sliding scale. The center provides all-day care for 60 children aged two-and-a-half to six years of working parents, many of whom are not its own employees. Many of the children are in the AMDC Program. It is open from 6:45 a.m. to 5:00 p.m. each day to cover the parent's workday and allows the parents to contact their children and staff of the center during the day (Hawkins, et al., 1967-1968).

Other industry-based Day Care centers are the Skyland Textile Co., Wargenton, North Carolina; Avco Printing Plant, Dorchester, Massachusetts, as well as additional firms in Kentucky, Massachusetts, and Tennessee.

d. Hospitals: An April, 1968, survey by the U.S. Women's Bureau of the U.S. Department of Labor, indicated that 98 hospitals were operating Day Care centers for their personnel. Fifty of these were in the south, 27 in the north central states, 11 in the northeast and nine in the west. Fifty-six had established the centers since 1963 and 16 since 1967, while nine centers had been in operation 15 years or longer.

These centers provided services for about 3200 children of 2550 employees, 60% of whom were nurses; 90% of the centers were subsidized by the hospitals, but the centers charged fees. More current information indicates that at least 114 hospitals now operate Day Care centers for children of their health personnel (Child Care Services Provided by Hospitals, 1968).

e. Women's Organizations: A number of women's organizations have been involved in Day Care projects for many years and continue a nationwide effort to establish more Day Care centers. The National Council of Negro Women (NCNW) is working with the Department of Housing and Urban Development to create and develop Turnkey III, an innovative housing program of home ownership for low income families, and hopes to establish Day Care programs as part of this effort. Two of the "Turnkey III" developments have been constructed and a Day Care facility has been built in each one.

The National Council of Jewish Women works to expand Day Care facilities. The Council hopes to establish a network of Day Care centers in hospitals around the country as well as industry-based centers. Some of their hospital-based centers are already in operation. Their Council is

also conducting a nationwide survey of Day Care centers.

For many years the Young Women's Christian Association (YWCA) has provided child care services for part of the day to mothers participating in its program activities. Some local YWCA's have loaned their facilities and, occasionally, sponsored a Day Care program as a demonstration project.

f. Miscellaneous Organizations: As mentioned earlier, business groups are establishing Day Care centers as large-scale business operations. These are single or multiple operations, as well as franchised chains of centers around the country. Although small Day Care businesses have existed for a good many years, increasingly stringent licensing requirements are making it more difficult for them to survive.

In addition, shopping centers, beauty parlors, and similar businesses are providing child care while the mother shops or utilizes their services.

The International Hotel in Las Vegas, Nevada, for example, offers round-the-clock care for children of all ages, in specially equipped facilities with trained child care staffs and a program designed to provide the child with unique "vacation" experiences while his parents are partaking of adult recreations at the hotel.

6. Licensing and Social Controls

Early licensing began with the establishment of the State boards of charity during the Civil War and post-Civil War period. These boards were established for inspection and reporting on the condition of child care facilities, but did not actually license centers. The first actual licensing came in Pennsylvania in 1885 when a law was passed prohibiting anyone from offering care to more than two children under the age of three without a license from the Mayor of the town, a justice of the peace, or a magistrate of the locality. Licensing in other states followed suit, due to lobbying of such groups as the Child Welfare League of America, until in 1920, there was in most states some regulation of one form or another.

The licensing was due largely to public scandal over abuse of children in some state subsidized institutions around the turn of the century. The philosophy behind licensing has remained virtually unchanged since. Licenses are seen as a way of closing down centers that are physically dangerous to children rather than as a device to ensure the development of sound programs. Usually placed in the welfare department rather than in the education or health departments, present licensing procedures are concerned primarily with safety features, plumbing and the amount of space provided. Some states regulate the adult-child ratio and set minimal qualifications for the licensee. However, enforcement of even these minimum standards seems rare. It is only recently that states have begun to consider regulation of program content as a proper exercise of licensing authority, although they have been regulating the curriculum content of private elementary schools for over a century (Class, 1968a, 1968b).

Needless to say, efforts to broaden the regulatory base at the local level faces concerted opposition from the majority of private operators.

Rather than try to change each set of statutes, several national groups are proposing standards which could be enforced by making the availability of federal funds contingent upon their being met, regardless of local or state laws. Mention has been made of the standards proposed by the Child Welfare League of America. Others include the Federal Interagency Panel, the White House Conference on Children, and the American Academy of Pediatrics.

These specify, in addition to facilities, safety and sanitation standards, requirements relating to the health, nutrition, grouping, educational and social services and staff training required for an effective Day Care program. In S 4101, Senator Long of Louisiana has proposed going even further, by pre-empting licensing as a federal rather than a state or local authority. This would provide a basis for establishing uniform licensing for all Day Care, regardless of its fiscal base. It seems clear, in the fall of 1970 that changes in the licensing of Day Care will soon occur. Whether they will be changes which promote the developmental opportunities of Day Care, or simply changes in the fire and safety codes to permit the use of presently substandard buildings, will tell us whether Day Care is to become a program for children or merely a device to attempt a reduction of the welfare rolls. While the first alternative can provide for the second one, the reverse is not true.

SOME CONCLUSIONS

Day Care in America is a scattered phenomenon; largely private, cursorily supervised, growing and shrinking in response to national adult crises, largely unrelated to children's needs, and, unlike the situation in many other nations, totally unrelated to any national goals for children or explicit goals of encouraging well defined character traits. Even today, the major motivations expressed for expanding Day Care are not child-related; they are related to freeing women for employment outside the home!

There are and have been some exceptions to these generalizations, and we have selected a few of these as examples. Growing out of special situations, and not readily replicable, they point up the discrepancies between what we are able to do for children, and what we for the most part are not doing.

SPECIAL EXAMPLES

1. The Hutterites

The Hutterites are unique within the American society in that they are the largest truly communal group and they practice communal child-rearing. To the Hutterites, childbearing and rearing are among their most important functions. Birth control, while not prohibited, is not practiced and large families are encouraged.

The Hutterites are one of the three Anabaptist groups -- along with the Amish and Mennonites -- that originated during the Protestant

Reformation in Europe. Like their co-religionists, they are pacifists, wear fifth century clothing, and carry their religious beliefs into their everyday lives. Crime, violence, delinquency, family break-up, and overhostility are virtually unknown among them. Beyond these characteristics, the differences are considerable.

Hutterites live on communally owned farms of about a dozen families. When the colony's population reaches 135, new land is acquired and the colony is split. All good are held in common, and all needs are met by the group. Collectively, the Colonies are virtually self-sufficient. They make maximal use of modern technology, and in addition to subsistence farming, manufacture many of the tools and machinery they use. While the mass media are tabooed, technical education is not.

Hutterite children are raised in central nurseries during the day after being weaned - usually at two months of age. Formal kindergarten instruction starts at two-and-a-half years of age and the children take their meals with the teacher. After school care is delegated to older siblings. Between the ages of five and six years, they do not attend school but are given simple chores to do and allowed to play. At six, children begin their religious education in the German language and their secular education in English. The colony usually hires an English teacher and provides the school house and equipment. After school, the children are often grouped under the supervision of a religious teacher responsible for most of their discipline. From the age of five to 15 years, all the children of the colony have their meals in their own dining hall, apart from the adults. At 15, they usually leave school and assume adult roles by dining with the adults and being assigned full time work. At this age they are also baptized, and thereby assimilated into the adult community.

Each family lives in its own house, which has no kitchen, and the mother is responsible for her family's laundry, sewing, cleaning, etc. The women take turns in helping with the communal cooking and baking (see Eaton, et al., 1951, 1955; Kaplan and Plaut, 1956; Allard, 1970).

2. Kaiser Day Care Program

The Kaiser Ship building corporation's program in Day Care was an outstanding example of quality Day Care during World War II while mothers were employed in the Portland, Oregon shipyard. It was an expensive program but the labor needs of the war effort were over-riding.

In 1943, two centers were built at the entrances to the shipyards for the benefit of the young children, 18-72 months, of mothers employed in the Portland shipyard. The Center facilitated aid to the war effort by offering a childhood education program operated by specialists in the field. Each center served approximately 375 children at a time. When it became apparent that older children needed care also, groups were formed for children aged six to 12 years for the "swing" and "graveyard" (night) shifts and for week-ends, holidays, and summer vacation periods.

Physically, the Center was designed like a wheel, with 15 bright

colored playrooms built around an inner grassy center which had a paved tricycle track around its edges. The classrooms were built to catch the sunshine all day.

The facilities were scaled to child-size. Windows, lockers, toilet bowls, and wash basins were low enough to serve small children efficiently. Toys and recreational equipment abounded: blocks, easels, teddy bears, puzzles, clay, tricycles, jungle gyms, wheelbarrows, etc.

Children were grouped according to age and maturity. Upon arrival each morning, each child was examined to see if he was well. A registered nurse was on constant duty in the Infirmary, which furnished care for slightly ill children. A Special Service Unit was available for emergency temporary sick care for a few hours or several days.

The Center was open 24 hours a day, running three shifts in conjunction with the shipyard shifts. Parents paid \$5 per six day week per one child, \$3.75 for each additional child. The children were fed three full, balanced meals daily, plus mid-morning and mid-afternoon snacks of fruit or fruit and milk. Night shift children were fed a light supper at 1 A.M. to tide them over until their tired mothers prepared a meal at home.

Children were taught manipulative and cognitive skills. A story and music hour spurred vocabulary and rhythmic sense development. Active outside play was balanced by rest periods.

Additional services made the center even more useful for participating families. A Home Food Service allowed the mother to buy inexpensive meals; pre-cooked main course, vegetable or salad, and bread or dessert. Child-care pamphlets regarding nutrition, sanitation, and educational and psychological child development were distributed periodically to parents. An exemplary pamphlet was "Children and War", which urged that extra attention be given children whose fathers were fighting overseas. Finally, a day-shift mother could pay an extra \$.25 to allow her child to stay through supper at the Center, allowing her time for shopping.

The Centers regularly researched new child development ideas, with the aim of constantly providing high quality care for children and their parents. Following the war, and the closing of the shipyard, the Centers also closed. In the 20 months of their existence, they served 38,111 different children (Lowenberg, 1944).

3. The Fifth City's Infant School

Operating from a detailed, quasi-theological philosophy of life, Chicago's Ecumenical Council has organized a 16 block area in a generally impoverished neighborhood into a demonstration cooperative self-help program. Unusual is the detail from which the guiding philosophical principles have been translated into community rules, songs, self-government and education at all age levels. The infant school cares for children while their parents work, provides programmed instruction, organized play and carefully developed character development experiences. Indications to date are that children who have come through this program are usually successful academically and socially, show great pride in a

strong group identification, and are meeting the goals for which this comprehensive group care program was designed.

SUMMARY

It is clear that Day Care is on the horizon on a scale never before experienced in this country. Proposed legislation now before the Congress - the Family Assistance Act of 1970 and the Comprehensive Child Development Act of 1970 -- when passed³ will provide federal funds for comprehensive Day Care programs, for training of personnel to man the programs, and for research and demonstration programs to provide the knowledge base to undergird the programs.

During the past decade, the Congress has taken a more holistic view in its human welfare legislation, e.g., the Work Incentive Program (WIN) did not begin and end with its main objective -- job training of AFDC parents -- but included as an integral element, the requirement that adequate child care be provided the children involved. Further, such welfare legislation not only funds more comprehensive service programs than in the past, but requires that evaluation efforts be made to determine the extent to which program goals are being realized.

Pressures from civil rights groups, the Women's Liberation movement, as well as from the more traditional sources of Day Care support are increasing and include the demand that quality Day Care programs be accessible to all who desire it for whatever reason or need. That such a demand may not lack validity is underscored by Bettye Caldwell in an unpublished paper (1970):

At this juncture we are unwilling to propose any social class limitations except as these can be determined on the basis of greater or lesser accessibility to alternative resources. Middle-class children respond beautifully to our supplementary environment. In fact, most of them literally soar in it. In an earlier summarization of the effects of preschool experience, Swift (1964) concluded that, by and large, the greater the disadvantage in the home environment the greater the gains associated with preschool. In our data, especially for the three- and four-year groups, the pattern trends in the opposite direction -- both groups show positive gains, but the middle-class gains are even more impressive. This finding has major implications for planning supplementary environmental experiences for young children from all types of family and social background. Most of our early intervention projects are based upon what Horowitz and Paden (1970) have called the deficit model -- we assume that certain deficits exist for which

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It is most likely that these bills, in one form or another, will be passed in the near future.

we can compensate. Likewise, we tend to assume that the middle-class child will not have these same deficits and that his development, as determined by observed behavior or test performance, will reflect an output that is closer to the maximum of which the child is capable. The fact that this is apparently not the case has important implications for the planning of educational facilities for all young children.

The question now is: Whither America in Day Care? We can provide Day Care for all our children if we wish. It is simply a matter of making the decision as a society and allocating the necessary resources to build the facilities, train the manpower, and to facilitate the initiation of programs by both the public and private sector. And in time it will be done.

But what kind of Day Care? To produce what kind of children? This is the basic issue. And a corollary issue is: What are the long-term effects of our intervention on our children -- particularly those interventions that lay heavy stress on a narrow aspect of development, such as cognitive development.

There are a number of things that we know: that children require a close, warm nurturing relationship with an adult in the first weeks and months of life, and preferably for longer periods; that children -- both young and old -- do better when their biological rhythms are respected by having regular times for eating, sleeping, playing and resting; that each child should know joy -- the joy of discovery, of achievement, of mastery, of beauty; that he should be cherished as a unique human being; that he have some way to contribute to his small world; that he may dream -- and out of those childhood dreams perhaps some day he may fashion a world where men may despair less and care more. To the extent that Day Care programs contribute significantly to this, they will have achieved far more than any other public institution has thus far in our society.

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PART II

PROGRAMS FOR CHILDREN

CHAPTER 3

OVERVIEW ON DEVELOPMENT AND DAY CARE

Jerome Bruner

If one is to distill some general conclusions from the four following chapters--on social and emotional development, cognition, language development, and learning--the first requirement is to maintain a well balanced pluralism. For there is, at present, no singular big truth concerning growth but only a set of rather smaller truths or probabilities, many of which need to be scrutinized closely to determine the kinds of situations in which they do and do not hold true. It is neither the general complexity of the topic nor scholarly cautiousness that leads to a plea for pluralism in the interpretation of our knowledge about growth, but rather some quite specific issues which, it seems to me, ought to be looked at very carefully at the outset.

1. The interdependence of functions. It will be obvious to the readers, as it has been to the writers of the various chapters, that one cannot separate the cognitive from the affective, learning phenomena from language acquisition, social development from growing linguistic competence, problem solving generally from the management of emotional hangups, or any of these from one another. Yet the organization of this volume has necessarily required a separation of topics. For while the substance of life as lived is seamless, the structure of scholarship is necessarily compartmentalized; because otherwise the task of research becomes unmanageable. To take a specific example, effective intellectual growth in children is massively influenced by emotional development: self-confidence, hope, and the like are known to be extremely important ingredients in intellectual development. Yet intelligence is treated in one chapter (Cognitive Development and Programs for Day Care) and self-esteem in another (Social and Emotional Development of Young Children). The separation is bound to produce a certain narrowness in the treatment of any particular topic.

This reviewer seeks to reintroduce a broader perspective and we shall turn to that synoptic task later in the chapter. But the trouble goes deeper than the separateness of chapters and may lie in the nature of the organization of the behavioral sciences, or indeed, in the very relationship between the behavioral sciences and the broader community. For the boundaries that mark off the specialities of the behavioral sciences surely do not correspond to the structure of the problems that emerge from the community, certainly not with those problems having to do with the care and nurture of the young. Nor can one combine behavioral science topics to correspond to the structure of social problems, anymore than the scholar who wishes to know about Chinese metaphysics can first look up "China" and then "Metaphysics," and emerge with an intersect.

Yet the organizers of this volume took the only wise available recourse: they chose specialists as they now exist, and asked them to write about the implications of their speciality for Day Care. As a result, the research reviewed was often not apposite to the needs of those working on Day Care.

What is still to come in the future is a reassessment of the nature of the growth sciences, one with a particular focus on how a society nurtures the growth of the young, indeed nurtures growth throughout the life cycle.

2. Ecological validity of findings. Many of the research findings in the following chapters were gleaned from highly specialized settings, situations which were, so to speak, "the best that could be managed." Frequently, however, these settings themselves distort the kind of behavior one is seeking to understand. To make the matter more vivid, let me give a particular example. In the chapter on language development, the authors conclude, quite rightly on the evidence that, in interacting with the child, the more the adult acts like an interviewer, the more likely is the child's response to be cursory and superficial. Yet, in another chapter, we find a number of generalizations based on research reported on the growth of "prosocial behavior," studies of "high-risk, low payoff" behavior in behalf of others in which the principal research device was a rigged situation with an adult model. The data were obtained through interviews conducted by adults with children who had been exposed to the adult model. The conclusions of these studies are extremely interesting but one is properly left with the feeling that specialized reactions of children to adult interviewers in this situation may not be representative of their behavior in many day-to-day, ordinary settings. In the same vein, the chapter on cognitive development makes a sharp distinction between the nature of thought processes that are clearly directed by task requirements and those that are not so stringently constrained in this way. Yet, in the chapter on social and emotional development, one finds that the level of aggressiveness or anxiety in children is judged by their reactions in doll play situations and it is implicitly assumed that such behavior will be transferred to more task oriented behavior. Obviously, we can neither define the limits of aggressiveness expressed toward dolls in play, nor how far this behavior generalizes toward other situations.

Our insensitivity to ecological representativeness may reflect our tendency as psychologists to skip over the phase of naturalistic observation before launching into our laboratory studies. The growth of ethology and behavioral biology, the emergence of painstaking field studies of primates and particularly of primate growth, and the enormous stress in modern biological thinking on the interrelationship between species typical behavior and the supporting habitat in which it occurs (Devore and Hall, 1965; Goodhall, 1967)--all have been highly fruitful; however, none of these seems to have had a strong counterpart in human developmental studies. There has indeed been relatively little work on the role of settings and social contexts in eliciting typical patterns of behavior. Yet one cannot escape the conclusion of Roger Barker's (1968) work that the principal determinant of behavior is the nature of the situation that the person--child or adult--perceives himself to be in. At a baseball game, one "behaves" baseball; in a post office, the behavior is appropriate to the setting. To study the incidence or pattern of baseball behavior or post office behavior in the wrong setting is surely one of the more massive ways of producing bad behavioral science. To say it in just that way is to emphasize both the banality and the power of the generalization involved. Applying this to a more searching social issue, we find that there is evidence indicating that the difference between poverty and other backgrounds in early childhood may be precisely situational, reflecting situations created by adults and

peers interacting with children in a way that requires certain frames of response. This is surely the burden of the work by Hess and Shipman (1968), Bee and her associates (1969) and the Schoggens (1968) on parental behavior patterns in poverty groups.

In sum, human behavior, particularly in early childhood, is closely linked to certain situational contexts. It cannot be separated from those contexts, nor can one generalize experimental findings easily from one context to another. This suggests that at some future stage, the behavioral sciences will have to develop--as Barker has urged that we do-- a psychology of environmental events that ceases to artificialize the environment by rendering it in vitro by experiment and then failing to consider its representativeness.

3. Ideological bias. In virtually every chapter of this volume, one will find a statement avowing that one cannot raise the young without making implicit decisions about values and ideals, because there is in each act of parental support or prohibition an ethic, and indeed a world view from which the ethic derives. Four such implicit assumptions are found in the chapter on cognitive development: the child should feel loved, should feel and be autonomous, should be free of fear and anxiety, and should have the opportunity to realize his full intellectual potential. This is unquestionably close to what most observers would set down as the ideals of child-rearing in our contemporary culture. Because Day Care is now undergoing enormous expansion and is therefore by rights a topic being given close scrutiny, it is altogether appropriate that we be sensitive to the ideological presuppositions in our plans. But by the same token, we must recognize that our "facts" and our "conclusions" may also be subject to ideological presuppositions.

I would therefore urge upon the reader the view that he cultivate--if he has not already done so--a proper suspicion of the ideological underpinnings of the work of behavioral scientists. This view is not likely to lead to an easy relationship between the producer and consumer of research on human behavior. Yet I believe it to be as necessary a premise in establishing a good working relationship between producers and consumers of the human sciences as it is between producers and users of economic theory. A theory of economics quite appropriately makes certain assumptions about the nature and desirability of markets and the kinds of controls that will operate upon them; the nature and desirability of competition, of mobility of the labor force, of acceptable level of unemployment, etc. It is extremely difficult to separate "nature of" and "desirability of" in each of these cases. In actual practice, any psychological theory of development also contains ranges of presuppositions and of assumptions about just such matters.

For example, most psychological theories--the very theories that generated much of the research in the following four chapters with which we are concerned--typically place the locus of causation at the level of the individual. It is an understandable presupposition, but a biasing one nonetheless. It is assumed in the chapter on social and emotional development, for example, that the individual is the locus upon which stimuli act to elicit individual reaction, to maintain individual behavior, and to reinforce individual responses. It is assumed that if the individual is aggressive or generous his responses were evoked by stimuli from outside

him and that the environment reinforced him qua individual. In consequence, experimental situations are set up that in effect reproduce such conditions, or else field situations are selected that attest to it. Species-typical forms of aggression and mutuality of the kind observed in higher primates are likely to be overlooked in preference to ones where, say, the reinforcement is clear.

The philosopher Charles Morris (1956) has made an effort to sort out and classify the cultures of the world into types, and it is hard to resist the conclusion that each of his types would generate its own unique psychological theory of development and accompanying experimental paradigms. In Morris' scheme the cultural types are "ways to live" which he has extracted with the help of a factorial analysis of philosophical positions. His brief characterization, I think, gives some sense of the kind of selectivity each type of culture would develop with respect to the kinds of processes they would want to investigate in their psychology and I have taken the liberty to introject these processes in the parentheses.

- Way 1: preserve the best that man has attained (emphasis on memory)
- Way 2: cultivate independence of persons and things (emphasis on freedom from stimulus control and intrinsic motivation)
- Way 3: show sympathetic concern for others (non-verbal communication)
- Way 4: experience festivity and solitude in alternation (studies of range of responsiveness)
- Way 5: act and enjoy life through group participation (group dynamics)
- Way 6: constantly master changing conditions (problem solving)
- Way 7: integrate action, enjoyment, and contemplation (personalistic psychology)
- Way 8: live with wholesome carefree enjoyment (emphasis on affect)
- Way 9: wait in quiet receptivity (progressive relaxation)
- Way 10: control the self stoically (studies of inhibitory control and gratification delay)
- Way 11: meditate on the inner life (introspection)
- Way 12: chance adventuresome deeds (activation studies)
- Way 13: obey the Cosmic purposes (mysticism)

Plainly, each way of life would be selective in its psychology concerning where order came from, whether from within, whether from the physical environment, whether from some cosmic order. Emphasis on the situation as compared to self-initiation similarly would be a reflection of deeper values.

Typically, scientists, and particularly social scientists, have claimed that they maintain neutrality between their work and values and ideology. The greater the distance between the science and the affairs of man, the less the insistence upon this claim. Obviously this is not the place to discuss the issue of whether human sciences can ever become value free or value transcendent. All we need recognize here is that there is an everpresent tendency for unexpressed values to be expressed, directly or indirectly, in the choice of research topic, in the range of phenomena to be investigated, in the nature of the hypotheses to be tested, in the kinds of subjects to be used, and in the form of generalization one achieves. American psychology, particularly social psychology and the psychology of personality, have been accused of being oriented toward middle class white problems, insufficiently mindful of the values and aspirations of those in the cultures of the dis-

possessed. The accusation is too broad to deal with, but nonetheless let us be forewarned--producer and consumer alike--that the issue is eminently worthy of close scrutiny.

4. Psychologism. This is a point which has already been referred to implicitly: that given an option between explanations that are psychological and individual, and those that would relate to the species or the culture, psychologists will opt for the former and be less sensitive to the latter. The matter is worth repetition in a somewhat different context here because of its centrality to the problems faced in this volume.

There are two kinds of determinants that psychologists are most likely to overlook because both are outside their usual range of attention. One has to do with culture and the cultural patterning of the environment that imposes upon participants a form of reaction that is virtually obligatory if one is to remain within the culture. This selective inattention to cultural determination is well illustrated in the view of intervention that many psychologists take with respect to the children of poverty. In the excellent chapter on the application of learning theory in Day Care centers for example, there is a discussion of the ingenious techniques that can be used to alter stimulus control over behavior in a fashion to substitute new reactions for old, to isolate old reactions from spreading to new situations, etc. It is taken for granted that the environment is alterable and that what one does in school is separable from what one does outside of school. But if the sense of powerlessness in poverty cultures results from a cultural patterning of stimulus events that is fixed by economics, say, it can easily swamp the manipulations of the behavior modifier. Rather than trying to control contingencies of reinforcement by the expedient of stopwatch and clipboard, one might better encourage the community from which the child comes to take militant or revolutionary action to break the culture pattern. But the latter is usually not regarded as within the compass of psychological intervention. Is the psychologist only the servant of his discipline?

Applied psychology in its very nature is probably too narrowly defined a discipline for many purposes. Often it needs the supplement of applied sociology and economics, or even of nutrition and public health. The recognition of this limitedness is now creating healthy ferment within the ranks of psychologists.

Many psychologists suffer a comparable form of myopia in their views of the biological determinants of behavior. Just as it is argued in the chapter on cognitive development that environmental support and triggering is required for hereditary patterns to come into being, so it can be argued that there must be the appropriate biological substrate for certain patterns of behavior ever to be learned. As various authors in this volume point out, learning is not in opposition to biological factors but rather interacts with them. This holds for various phases of language learning, psychomotor development, and for aspects of emotional and moral growth. In the final analysis, it can be said that, just as a failure to recognize the full power of the broader cultural environment leads to futile fiddling with the narrow one, so too failure to recognize man's broader biological inheritance may lead to frustration when one attempts to change patterns of behavior in a fashion that goes counter to level of maturity or nature of the species.

5. Communication. There is a special problem about the writings of psychologists and other social scientists which is worthy of mention here because it poses serious barriers in the working relationship between behavioral scientists and practitioners. It is not simply that we psychologists write badly and thereby put off those with whom we desperately wish to communicate: the potential users of the knowledge that we generate. To some extent, the bad writing in which we indulge has high and noble purposes. We are trying to show that what we have to say derives from theoretical considerations, from axioms that are rich enough to permit derivations, and that our conclusions rest on observations whose intrinsic limits we respect. So we speak with high qualification, with maximum emphasis on the derivational rigor of our thoughts, and with minimum concern for common parlance. It is also our way of saying, in effect, that we are above the passion of common discourse, and for this reason too we cultivate dryness.

But it may be that we psychologists are also involved in some self deceptions. We may in fact need our kind of language to help hold at arms length the isolated nature of the variables with which we deal. Our language may have the effect of seeming to reduce the world of behavior to the manageable dimensions of a chess game. But because language also begets thought, the nature of thinking within our science may be affected by this same dryness and illusionary manageability. However much we may use the overly simplified term "elicit" to describe what a stimulus does to behavior, we come not one whit nearer to grasping how in fact behavior is released or impelled, how passionate acts of self-sacrifice are triggered, how we manage to go along with a culture pattern whose very existence does not become clear until years later. Does water elicit the behavior of a fish? Yet is it imaginable that his behavior would be appropriate without water?

The reader is cautioned, therefore, not to succumb to his impatience with the pokey caution and stereotypy of our style of writing and thinking.

IS THERE A CONSENSUS?

The present volume was intended to survey the state of the art in the field of child development and child care in order to determine guidelines for Day Care. I have attempted to select from the remaining chapters in PART II¹, some relatively serviceable generalizations about both development and care that might serve at least as a first approximation to guide those who are working on Day Care administration, on the construction of curricula for Day Care, and on the general philosophy underlying such activity. These will be set forth and discussed in the present section of this chapter, and then a final section will be devoted to some general considerations about development and care along with an assessment of areas that are critically in need of further cultivation if we are to have the knowledge necessary to carry out the tasks ahead.

The reader will note that, in discussing the following four chapters, I have taken liberty and deviated from the sequence in which the chapters appear in PART II. My own sequence does not represent any ranking by value or some other criterion but was chosen simply for organizational convenience.

Social and Emotional Development

The first point has to do with attachment of the infant and young child to an adult. For a child to grow into a society such as ours he needs a caregiver--one who will give care. This means that there must be an individual in the child's environment who both initiates activity and provides comfort and relief to him. These are two factors which appear to be crucial, at least from an examination of the mass of literature in recent years. It also seems to be reasonably clear that the child's attachment to an adult is not a matter of the quantity of contact between them but depends rather upon the quality. Quality means basically the mutuality and exchange between an immature and a mature human being. The bulk of research seems to indicate that such attachment is as rewarding and "addicting" for the adult as for the child, and that there are few things that prove more traumatic for an adult than an infant who does not respond. Indeed, as Dr. Gewirtz points out in his chapter, the very act of reinforcing a baby in turn provides the occasion for reinforcing the adult.

A key problem in Day Care is the relationship between the child's caregiver and the child's appropriate parent. Where the child has a secure single attachment it seems to be easier for him to develop attachments to persons other than his mother. Moreover, the forming of multiple attachments of the kind that exist in a nursery do not appear to weaken in any way, the single attachment to mother--a recent finding by Caldwell, et.al. (1970) too late published to be incorporated into an appropriate chapter in this volume. Virtually all of the relevant studies indicate the importance of the first year of life for attachment, and some of the most recent work points out that the process of attachment begins very early, with feeding, eye-to-eye contact, evocation and reinforcement of smiles. The child is highly sensitive to mutuality in his environment by the fourth month, and responds to thwarted or violated expectations of response, not only by distress but by persistent gaze aversion.

Closely related to the problem of attachment is what traditionally is called dependence. Two decades of research on this topic leaves one with the impression that dependence is not a consistent trait but is rather determined to a considerable extent by situations in which the child finds himself. Likely as not some children prefer and even create dependency situations while others do not. Part of the inconsistency in the literature also has to do with the progress of the child from dependence upon adults to dependence upon his peers, and much of the difficulty in making generalizations about any child's dependence is that it depends upon where he is in this shift and how well he is effecting it. So, dependency is poorly understood as a trait, if a trait it is. So too is independence or autonomy, which turns out upon measurement (although measurement yields high unreliability) not to be the mirror image of dependency. Probably, it will require a much more detailed ecological analysis before it becomes possible to establish correlations between dependency or independence and other factors that are high enough to lead to any strong conclusions.

The same might be said about aggression in the young. Again, it is quite plain that there are many determinants and that prediction will be enhanced by taking into account the nature of the child's present situation

rather than depending upon background variables. The findings certainly convey, though not at a high level of significance, that "hostile" parents tend to have more aggressive children; however, the mechanism of transmission is anything but clear.

Aggressive behavior is perhaps better understood than is aggressiveness as a trait. Certain subcultures and certain situations appear to be major releasers of aggressive behavior. For example, the presence of aggressive acts in an environment seems to stimulate others to commit similar acts. Children are sensitive to whether or not aggressive acts are encouraged or punished and they act accordingly. A popular view holds that frustration is the cause of aggressive behavior. However, frustration may not lead directly to aggression. Indeed it may lead to cooperative behavior, although in some instances the cooperation may be to commit aggression on an outgroup. Obviously some cultures take a tolerant view of overt aggression, but all cultures, equally obviously, have constraints and sanctions against violating their norms on aggression.

Anxiety and fear in children in a preschool setting are also problems that must surely loom large in the eyes of those who are setting forth program guidelines. Unfortunately, the problem of anxiety is still a problem for the psychologist. It seems to relate to a sense of helplessness, of being overwhelmed by the environment and by one's own incapacity to cope with the environment. There seem to be many ways of coping with it, but not all of them are desirable. Surely one of the major alternatives open to the managers of a Day Care center is the formation of strong bonds between the center staff and the child--one of the ways of giving the child an opportunity to develop a sense of competence in coping. With respect to anxiety and competence, the famous Yerkes-Dodson Law still seems viable: a small amount of anxiety is helpful in activating the organism, beyond which anxiety is disruptive; the more complex the task the lower the optimum level of anxiety need for arousal. It follows then that a child (prone to anxiety) would be far more likely to resist anxiety if exposed initially in new situations to tasks that demanded little for achieving success.

Just as aggressive behavior modeled by adults or peers produces aggressive behavior in onlooking children, so does the incidence of generous behavior increase when exemplified by models. We do not understand such "imitation", and the reader will find much contradiction in the chapters dealing with it. We shall return to it later. There is a classic finding of some decades ago by Lois Murphy (1937) indicating a high correlation between aggressive behavior and sympathetic behavior among children in nursery school situations. A child able to express his aggression was also better able to express his sympathy. It may very well be that in modeling studies there is some kind of general activation level that is involved, some susceptibility to activation by peers or adults. Beyond modeling, there is also a question of the kinds of situations involved, such as the opportunity to work with others, that stimulate sympathetic or prosocial behavior. A classical study by Meredith Crawford (1935) suggests that chimpanzees will work cooperatively in tasks whose desirable goal cannot be achieved by a single animal. One wonders whether comparable situations might have a comparable effect in arousing generous and cooperative behavior in children.

In concluding this overview on social and emotional development, one

notes the demise of the standard dogmas of psychoanalytic theory. There is little in the recent literature on the vicissitudes or even the stages of psychosexual development. Toilet training is no longer a preoccupation. Psychoanalytic theory has been absorbed and has greatly enriched our understanding of development. But it has ceased to be influential as an independent movement. In place of the classical concern with psychosexual development has come an interest in agonistic behavior, control, moral development and ego functioning.

Still missing in the literature on social and emotional development is an appreciation of the ways in which the mood and history of a community translates itself into modes of rearing children. We do not yet have detailed enough knowledge, for example, of the manner in which the middle class value of restraint is transmitted to and reinforced in the young child. A first step toward filling the gap is to be found in the work of the Schoggens (1968), of Barker (1968), and of Hess and Shipman (1968) and of the linguists who have been returning to detailed and deeper examinations of behavior acquisition.

Development and Learning

With respect to the role of learning in development, there is little question that the functional behaviorism expounded in Dr. Gewirtz's chapter heightens awareness of relevant issues. His emphasis on the inseparability or interaction of stimulus and response would be widely endorsed among psychologists of divergent backgrounds. Similarly, his emphasis upon the role of contingencies is also well taken.

What hobbles the application of such a rigorous behaviorism is by now fairly obvious. All responses are not independent entities that can be taken out of the context of ongoing action, to be brought individually under control in the interest of "managing" behavior. The structure of behavior as well as the structure of the stimulus world is highly organized, and neither can be neatly divided into individual units for the convenience of the programmers of reinforcement schedules, as even Dr. Gewirtz implies. Nor does one have sufficient monopoly over the environment of the child, nor should one, to play the role of exclusive shaping agent.

Yet for all the criticism implied, Dr. Gewirtz's advice on Day Care is practical and useful. A mix of children of different ages may tempt out tenderness from older children. So too the discussion of the importance of keeping in mind an objective that one is trying to achieve. But while the talk is tough--i.e., it must be a behavioral objective--the point is well taken, and the examples suggest that one can either be wise or foolish in the choice of criterion.

Looking at the two chapters, one on emotional development and the other on learning, one cannot but be struck by the different strategies pursued. Work in the tradition of operant conditioning places major emphasis upon the individual's history as defined by the schedules of cueing and reinforcement. It disavows statistical procedures and chooses instead to examine the detailed history of the individual organism. But the excess of this virtue may turn into a vice. For in the present instance, if one is to understand the history of reinforcement, one has to control the situations to such an extent that the work loses its ecological validity. It achieves its intensity

by gambling on a very small number of variables and studying them in very great depth but without regard for the natural habitat of the organism being studied.

Quite the contrary view prevails in most of the studies reviewed in the chapter on emotional development. These are primarily of three kinds. The first consists of large scale correlational studies designed to examine the manner in which boys come increasingly to differ from girls, or the children of hostile parents come to differ from children of non-hostile parents. Traditionally such studies have been satisfied to settle for correlations between .40 and .60 and it is the rare paper indeed that contains anything higher. This means that most of the successful work of this kind accounts for between a quarter and a third of the variability in the data obtained. This is not to be dismissed, because such studies may gradually move in the direction of achieving better and better definition of variables, although it is not yet plain whether this is the case. A second type of study characterizes stages of development or courses of growth. Typical of this kind of work is the Piagetian analysis of moral development, showing how the intrinsic logic or explanation of growth varies with age, or indicating that as children grow older they come to depend increasingly on their distance receptors or that bursts of aggressive behavior decline with age and become more predictable as to their sources of evocation. The third type of study introduces alteration in the environmental condition and looks for changes as a result. One well known type of study introduces the child into settings in which violence is either being depicted or committed, and asks whether the child's behavior is influenced as a result.

Cognitive and Linguistic Growth

Turning finally to the chapters on cognition and language, some comments are needed first on the distinction between competence and performance. In speaking of models of cognition, for example, Dr. Kagan quite justifiably makes much of the role of self-evaluation in the thought process. His pioneering work on impulsiveness and reflectiveness in children sensitizes him particularly to this issue, and serves here, I believe, to characterize in a somewhat unusual setting, the distinction between performance and competence. Kagan operates on the assumption that the child, any child, has the capacity or the competence to pause, in the process of solution, to evaluate the alternatives that are available. The child performs on the basis of this underlying competence in a fashion that reflects situation and predisposition. There is no question that he has enough competence to vary widely in his pattern of performance as a function both of situation and habit.

This is not to say that the exercise of evaluation may not eventually change underlying competence since exercise provides the opportunity for sharpening skills related to self-evaluation. So that in good season, and with sufficient intervening opportunity, today's performance may in fact affect tomorrow's competence. But there is a second crucial point in the argument. What happens when performance alters competence? Here we must pause for a moment and examine the meaning of competence. It refers usually in cognitive theories to a capacity for generating specific examples of behavior by combining constituents by guidance of a general rule. The sentence in language, of course, is the most striking example. Given an intention to communicate and a grammatical competence, plus a lexicon of

constituent morphemes, one can put together appropriately and without error the sentences that are in conformity with what was intended--plus a certain ambiguity which can never be ruled out. By this procedure we generate a vast number of rule-governed sentences of any length, for any purposes, in any context--many completely novel to both ourselves and others.

Obviously, language is the sphere in which it is easiest to illustrate the form of competence involving the application of rules to the specific performances to be generated. But there are others as well. Vygotsky (1966) describes the play of twin sisters, which begins when one says to the other, "Let's play sister." The essence of the game is that each of them shares all things alike, operates with complete reciprocity, and in every discernible way follows a rule of equality of opportunity and of sacrifice and of performance. They are sisters, but nonetheless there is still a game of being sisters. So too with the issue of evaluation, in Kagan's sense. He quite properly assumes that the children he is studying learn how to perform better and better by virtue of exercising reflectiveness and that this works its way back into their competence, in the same way as having to clear up a misunderstood sentence inevitably forces one to increase one's competence in creating sentences.

And so it goes with intelligence. Virtually all theories of intelligence assume that one is dealing with a set of capacities or competencies, and that the task of rearing is to make it possible for the child, first of all, to be exposed to an environment in which there are opportunities for and models of the forms of competence that are to be learned. That is to say, the well regulated child-rearing regimen from the point of view of a cognitive psychologist would be one in which there is arousal of the intention to carry out certain activities, such as speaking, comprehending, constructing attending, or recoding from memory; secondly, there would be an opportunity for the child to achieve knowledge of results in order to correct his activity, as well as encouragement or reinforcement to make it worthwhile in his economy of striving. Specific behavioral objectives become absurd in such a picture since what is important is that the child be able to generate a variety of performances rather than a particular kind of performance. nonetheless, in seeking to achieve competence one does look to behavior, much as the operant theorist would, although perhaps with a broader band of alternatives included in that which must be achieved.

In the cognitive approach, stimuli are treated as instances of a general class, each to be coped with in its generality. The stimulus is only in rare cases, then, something to be responded to specifically. What one is attempting to do is encode it in some meaningful way; thus, the principal emphasis is upon the notion of information processing as the basic analysis. For the cognitive theorists, the first task of an organism faced with an environment is to process the information, to sort it and categorize it in terms of actions to be taken or connections to be hypothesized and tested. It was Edward Tolman who many years ago distinguished between cognitive theories and stimulus-response theories in terms of the image of a map room model and a telephone switchboard model, respectively. The cognitive theorist is principally concerned with how information is put into maps so that the organism can then generate many performances based on this structuring. The S-R theorist, in contrast, is concerned with the connections made between input messages and responses. It is interesting however that in actual practice, as well as in the interpretation of specific experiments, the two schools of thought come closer together. The operant

theorist begins to consider the possibility that stimuli and responses may be generic, and that the relationship between them need not be of a one-to-one nature, in which a particular response serves to produce a reinforcement that relates only to that particular stimulus-response connection. For his part, the cognitive theorist also becomes interested in how, at the initial level of learning, responses may take place without regard to broader information context.

It is precisely because of his concern with the cultivation of competence that Kagan expresses dissatisfaction with the concept of IQ as related to intelligence. The IQ is a rough performance standard, designed for engineering purposes, to sort children into different grades. Rather than use this approach, Kagan urges that we view intelligence as being made up of constituent abilities that operate somewhat independently of each other, in the manner described in Guilford's (1967) most recent book. This is probably wise in the present context since it urges that both the school and the preschool attempt to serve the needs of the child in various manifestations of competence and that the relative independence of these competencies be honored by giving the child an opportunity to discover on his own which things, or better, which type of things, he does best. Whether or not the array of special abilities prove also to be saturated with one general ability that has to do with ease in acquiring skill, Kagan's caution seems an admirable one, and one most likely to honor the individuality of the children involved.

One further point in Kagan's chapter needs highlighting, that is the importance of providing means of learning other than verbal representation and verbal review--especially the means of action and imagery. Most analyses of curricula, from the earliest grades on, have tended to point to the error of providing an overly verbal learning environment with insufficient opportunity for children to utilize nonverbal, affectively tinged, skills that involve them in action towards objects and things and in the creation, transformation, and appreciation of images. These are the materials that greatly enrich the schemata of which Kagan writes.

Turning now to the chapter on language, several special points need to be made in order to relate it to some of the earlier discussion of emotional learning and the more conventional types of learning theory.

The more we have learned about the acquisition of language, the more uncertain have we become about the mechanisms of learning and imitation that are presumed to be involved in the acquisition of social behavior in man. It seems, for example, that when the child is exposed to adult speech samples he extracts from them certain rules and procedures that differ from adult speech and yet depend upon exposure to adult speech for their initial realization (Weir, 1962; McNeill, 1970). In short, the young child uses grammatical rules which are appropriate to his stage of development, but they are types that do not appear in adult speech. Moreover, the child's ability to use the syntactical rules of the language have little if anything to do with being reinforced or rewarded in any discernible way for the use of such rules. Indeed, the evidence all points to the fact that, insofar as the child receives any reinforcement or encouragement from the parent, it has to do with the child's semantic accuracy or the truthfulness of his statement, and virtually never revolves around the syntactical correctness of his utterances. Yet, the child grows up speaking a syntactically

impeccable English that is well suited to his own speech community, even if it be non-standard English; however, at the same time, he may be inexact in his semantic usage and perhaps even incorrect or untruthful in his statement. What seems to be important, then, is that the child be in a linguistic community so that he may be exposed to its practices and a party to the dialogue within that community.

Beyond sheer membership within the speech community, the major determinant appears to be encouragement to use language in a variety of situations and for a variety of purposes. This is traditionally known as linguistic pragmatics, which is somewhat in contrast to the study of either syntactic or semantic aspects of grammar, and is perhaps most easily understood when viewed in relation to the functions for which language is used. Undoubtedly, there are enormous differences in the extent to which children are encouraged to use language as a way of restating their intentions and their plans. Various investigators, notably Bernstein (1970) and Hess and Shipman (1968), have commented that there are probably differences in social class patterns in the way in which mothers encourage children to formulate their plans in language and the extent to which mothers demand a linguistic accounting. It has also been pointed out quite forcibly by Bernstein (1970) that the very conditions of life within the restricted range of a ghetto or poverty community may serve to parochialize language and prevent it from developing a structure that permits discourse with partners who have not shared the same experience within the same setting. According to Bernstein, this type of linguistic parochialism, the so-called "restricted code", provides a poor basis for considering events in linguistically coded form, independent of the direct experience of the events proper.

Relatively little is known about the best ways of encouraging language development, or indeed of teaching a native language at all.

It is known that vocabulary is always correlated with educational level of the home. The child from a better educated background almost invariably has a more extensive control of words in the conventional lexicon. Yet, when compared with the child from a less educated background, no difference can be shown to exist with respect to grammatical concepts, capacity for syntactical complexity, or any other conventional linguistic matter aside from those extralinguistic issues having to do with the use of language in different situations. It seems, therefore, that the superior vocabulary of the child from the better educated background serves to assure him a more precise mapping of the world of objects, events, and relations. Should this be the case, then presumably it would be possible for such a child to use his other grammatical equipment more effectively, not only for coding messages destined for others, but also for coding ideas that would be treated ratiocinatively and by reflection within his own head.

In the chapter on language, Cazden et al., offer sound advice on the regulation of adult-child conversation, and on the problems of language use. As to the former, the authors suggest that, in talking with children, adults avoid the role of interviewer and make themselves a resource in response to the child. They also urge that, in Day Care settings, the ratio of very young children to caregiver be kept small, so the linguistic resources of caregivers will not be swamped by their needs, and thus be unavailable to the somewhat older children. By the same token, the authors

point to the importance of allowing the staff a high degree of autonomy and stability so they can enter on their own terms into a continuous type of working relationship with children, one which is based on the mutual interests of the child and the caregiver, rather than upon custodial requirements. Where linguistic use is concerned, note is made of the importance of respecting not only the pattern of standard English, but also the child's own dialect and grammar, whether it be Negro English, the transitional mix of Chicano English, or some other pattern. Cultural pluralism, at the linguistic and practical levels, cannot be overrated as a means of giving the child confidence to talk about his "own thing." The authors, with good wisdom, do not overlook "what" should be talked about. They suggest that the talk center around warm things--food, care, play and life--and about matters that are important both to the child and the adult.

TOPICS IN NEED OF DISCUSSION

Most of the work that compares children from different socioeconomic backgrounds points to three interconnected influences associated with poverty as a factor in development. The first relates to the management of goal seeking and problem solving, including their more playful forms. Differences in the management of goal striving surely reflect differences, not only in psychological factors that operate upon mother and child but also in the opportunities and rewards provided by the culture. There is much evidence to indicate that cultures of poverty do develop (Lewis, 1966), and though they may not be easily alterable, such cultures are worth studying from the point of view of what, in fact, might alter them. Persistent poverty over generations creates a culture of survival. Goals become short-range and restricted. The outsider and the outside are suspect. One stays inside and gets what one can. Beating the system takes the place of using the system for advancing. Such a culture gets to the young early and influences how they learn to set goals, mobilize means, delay or fail to delay gratification. Very early too, they learn in-group talk and in-group thinking. And just as their language use reflects less long-range goal analysis, so it tends toward parochialism, making it increasingly difficult to move or work outside the poverty neighborhood and group. The culture of poverty may be a rich one, in that it is intensely personalized and full of immediate rather than remote concerns. The issue is not one of cultural deprivation, which like avitaminosis, is to be handled by a massive dose of compensatory enrichment. Rather, the issue is to make it possible for the poor to gain a sense of their own power, through jobs, through community's activation, through creating a sense of future. Jobs, community action under community control, a decent revision of preschool and early school opportunities--all of these are crucial. But just as crucial is a sense of the change in the times--the insistence of the powerless that their plight is not a visitation of Fate but a remediable condition. If we cannot produce that kind of change then our system, which has worked fairly well, even if exploitatively, since the Industrial Revolution, will be in danger.

A second factor, as already noted, is the issue of language. By exposure to many situations and through the application of many demands, children come to use language in different ways, particularly as an instrument of thought, of social control and interaction, of planning, etc.

Again, the culture of poverty and the conditions of life that it creates, as well as the expectations it generates in parents and children, has the effect of leading some to use the instrument of language analytically and reflectively, while others are not so affected. The result of a failure to so use language is that it makes it difficult for the child to take advantage of the usual forms of thought and discourse employed in school settings. In effect, where the child, by background, has been kept from developing a typical middle class analytic style, he is slowly but surely excluded from schooling, and thereby excluded from access to the powerful tools of the technology and of the mainstream culture. He is systematically made ineligible for jobs endowing him with either prestige or specialized skills.

The third general issue in the matter of poverty and childhood has to do with the pattern of reciprocity into which the child moves, whether he is middle class or poor and dispossessed. What parents expect, what teachers demand, what peers anticipate--all of these operate to shape both the outlook and approach of the young. The community that has given up hope of advancing the plight of either itself or its children signals this attitude powerfully to those who raise the young. The culture of defeat and resignation that grows in response to poverty may be full of humor, but it also is one that bars the young psychologically from participating easily in the broader community without feeling rejected, suspect, and inferior.

As I have said, Day Care is not a simple matter of overcoming deficit. Rather, it consists basically of giving the child from a poverty culture some sense of hope and power about his capacity to use and develop skills, about his ability to relate to others in the broader community. By virtue of any criterion of equal opportunity and equal access to opportunity, the children of the poor--particularly the urban poor--are plainly not getting the quantity and quality of schooling that is provided their middle class age-mates. By any conservative estimate of what happens in the pre-school years, about half a million of the roughly four million children of each age year in the United States are receiving substandard fare in Day Care, nursery school, Kindergarten, guidance, and whatnot. Induction into the culture of failure begins early. Occasionally, we seem to make some gains. For example, the famous Westinghouse study of Head Start (1969) found that some nine in ten parents felt that the program had helped their children. Yet, we have not a clue of what it was that led the parents to this view, of what in fact most of the children did either in school or after that would have led to such a sense of desirable outcome. Perhaps if we knew this, we would know better how to maintain the gains of Head Start children as they proceed into elementary school. Again, perhaps we would not. Probably, we cannot change the plight of the poor without changing the society that has permitted such poverty to exist during a time of affluence.

At a symposium on the "Education of the Infant and Young Child" at the American Association for the Advancement of Science late in 1969, several common themes ran through the reports of research on the nature of this culture of failure and on the type of intervention that proved successful. The first was that there is an enormous influence exerted by the child's day-to-day caregiver, whatever the program. Programs had to consider the mother as a major factor, but one to be worked with, not

compensated for. This is surely congruent with the body of psychological research that we have explored in preceding pages and which will be taken up in detail in the chapters following.

Secondly, there was the theme that growth involves a small stepwise acquisition of skill and competence on a day-to-day basis. Though theories of development emphasize principally the great leaps forward, it is in the management of day-to-day progress that discouragement or encouragement occurs. Intervention therefore must provide continuous support for the child, a kind of scaffolding that permits him to make progress and to feel confident that he soon will be able to take over his own enterprises. Just as Day Care programs must not only involve but also encourage the mother or the child's principal caregiver so too must they provide the occasion for the child to move successfully toward a sense of competence.

The third theme pointed to the enormous contribution to cognitive development which comes from factors that, on the surface, are anything but "textbook" cognitive. They are, instead, such diffuse affective factors as confidence in one's capacity to control the environment, hope in the future, etc. They too operate day-to-day and they affect the caregiver's mood, which in turn reflects the mood of the community in which she lives. What was referred to earlier as affective learning also colors cognitive learning, and both are strongly influenced by the tone of the mother-child relationship. In a word the successful promotion of skill and competence at the intellectual level requires cultivation of a sense of security at the emotional and social level as well.

Fourthly, it is now widely agreed that the idea of "enrichment" puts the child in the position of a passive consumer. One study after another has shown that, if a child is to benefit, he must be helped to be on his own, to operate eventually on his own activation. No program can succeed that is built on the assumption of enriching the environment unless it also provides means for getting the human beings in that environment to take action on their own initiative, whether the action is in solving small daily problems in the nursery or coping with the plight of the broader community. There is something about activity at the community level that signals to children that it is worth their while to solve problems at the preschool level.

The fifth theme pointed to the wide range of alternative ways to succeed in an intervention program--provided only that it produce opportunities for mother and child to carry out activities that are somewhat structured that lead to directed action, and also assure the child some sense of security. There is no one ideal Day Care program. This should be plain not only from the results of the kinds of studies reported at the AAS meeting referred to above, (Denenberg, in press) but also from the pattern of findings which we have been summarized in this chapter.

Although far more research is needed before we fully understand the impact which poverty and other environmental factors have on human development, one thing seems abundantly clear: efforts to optimize development must begin at an early age for the child and include both his parents, especially his mother. This fact, alone, makes Day Care an urgent issue.

Such programs, provided they are wisely planned, conducted and supported, will surely be a keystone in any efforts dedicated to creating opportunities for all citizens in our society.

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CHAPTER 4

SOCIAL AND EMOTIONAL DEVELOPMENT OF YOUNG CHILDREN

Irving E. Sigel, Raymond Starr, Ada Secrist, Joseph P. Jackson, Emory Hill

INTRODUCTION

This section deals with the development of social and emotional behavior in young children. This affective domain of behavior and experience which we popularly call "feelings" is admittedly only one aspect of human behavior which scientists conventionally separate, as they do other behaviors, for purposes of study. Such separation is, of course, arbitrary. Social and emotional factors do not exist in isolation but interact with other aspects of human functioning. They play an important role in how we learn, think, and live. The reader's task is to relate this knowledge to that in other chapters and thereby create his whole of human behavior.

Since the greatest gap in our knowledge of child development is of behavior between the ages of two and three, many findings of this chapter have been drawn from research covering a rather broad age span. The particular behaviors we shall discuss were selected because they are first of all, central to the development of personality, and secondly, they are of practical concern in the group care of children.

Many students of child development are opposed to Day Care because they fear that group care will damage or distort the child's personality. There is no doubt that it can. It is also clear that damage can be avoided if provisions are made for enough caregivers who are sensitive to the areas of possible damage and have been taught how to avoid damage.

This chapter will deal with those areas of the child's personality development which are most susceptible to mismanagement -- they include --

--Attachment-The child's desire to seek closeness with "mothering figures" and "significant others".

--Dependency-The child's tendency to seek emotional satisfaction from adults and to seek help with tasks.

--Aggression-The tendency to strike out to destroy or alter situations.

--Anxiety and Fear-The sense of foreboding or fear which usually results from deprivation.

--Sex-role Development-The learning of social behaviors and interests appropriate to one's own sex.

--Self-Control and Moral Development-Learning to control one's impulses and to delay gratification and the development of concepts of justice, fair-play, honesty, etc.

Each of these systems of attitudes and behaviors is learned by the child largely through the child-rearing practices he experiences. We shall endeavor to describe how specific child care practices effect each of these systems.

INFANT ATTACHMENT AND RELATED BEHAVIORS

Research indicates that the attachment of the infant to his mother and other significant adults is a natural and necessary process in healthy development. The word attachment has been used to describe the infant's desire to seek closeness and contact with "mothering" individuals across varying distances despite periods of absence from the individual. Attachment behavior may be demonstrated only occasionally and varies greatly in intensity according to circumstances. Attachments are specific, long-lasting, emotional and learned (Ainsworth, 1969). Because of their great importance to human development, the psychological consequences of attachment behaviors cannot be ignored in planning Day Care services for young children. Consequently, we will summarize some of the relevant research on the nature, origins and course of development of attachments; factors influencing their development; the relationship of attachment to other aspects of development in infancy and the role of attachment in subsequent behavioral development. For more detailed reviews, the reader is referred to Ainsworth (1969) and Bowlby (1969).

Development of Attachment

The infant shows few indications of attachment until he is about three months old. He then begins to respond increasingly to one person--usually the mother. Gradually, at about six months of age, he develops the idea that the mother is an independent individual and he becomes concerned about her presence or absence. She serves as a "secure base" from which the child can move around and thus respond to other aspects of the environment. At about this same time, many children also begin to develop a fear of strangers, although this fear appears to be related to the amount of experience the child has with other mothering figures (Bowlby, 1969). Concurrently, the specific attachment to one person broadens to include others, especially the father, and other people who interact regularly with the child. The research of Schaffer and Emerson (1964) indicates that infants who had strong principal attachments were attached to a greater number of other adults than were infants who had weak principal attachments.

Thus, it appears that the child's natural tendency to seek closeness and the type of response adults make to this behavior tend to contribute to the development of attachments. It has been suggested that the failure to develop attachments is a significant factor in the development of anxiety and feelings of insecurity and, further, that long-term effects of this lead to emotional disturbance (Robertson and Bowlby, 1952; Ainsworth and Bowlby, 1953). From this, one can conclude that Day Care staff must be capable of being "significant adults" in the lives of the children they serve. Considerations for hiring Day Care staff, therefore, must include those which relate to the quality and quantity of caregivers so that there will be a sufficient number of adults who, by nature, pay attention to children and interact with them with some degree of intensity. Further, selection of staff should provide for a long-

term continuing relationship between each child and a caregiver.

Separation Anxiety

At about seven months of age, the infant begins to show anxiety when he is separated from his mother, although he may not show distress in every day separation situations (Ainsworth, 1963; 1967; Yarrow, 1967). However, much research remains to be done before we can fully describe the ways in which infants separate themselves from their mother. Present evidence indicates that this separation is easier if the child has had some close contact with a significant person. In the laboratory, infants have shown signs of distress and search behavior when left alone. Similar behaviors were exhibited when the infants were left with strangers but separated from the mother. Upon reunion, infants showed strong approach behavior after the mother's first reappearance and strong clinging behavior after seeing her on subsequent separation. However, the degree of distress was relatively unrelated to the intensity of attachment (Ainsworth and Wittig, 1969).¹

Given that such reactions are typical when infants are separated from their mothers, caregivers in Day Care should not be surprised to see such behaviors. However, since the evidence indicates that a close and intense contact with the adult enables the child to develop strong relationships with people other than his mother, the caregiver who is highly responsive to the child's needs for attention should be able to eventually provide the child a basis for a secure relationship. Further details on how the caregiver can provide such a relationship and environment can be found in the chapter by Beller in this volume.

Attachment and Exploratory Behavior

The relation between attachment and exploratory behavior has been examined rather extensively. Infants appear to use their mother as a secure base for their exploration. Her absence has been found to lead to a decrease in exploratory behavior and an increase in crying and search behavior (Ainsworth and Wittig, 1969). These effects are greater in one than in two year old children (Cox and Campbell, 1968). However, exploratory behavior, even in the presence of the mother, does not seem to occur in a monotonous environment although it can be enhanced in this situation if toys are supplied (Rheingold and Samuels, 1969). Yet, a room with toys only (as well as one that is empty or one that contains a strange female only), leads to decreases in exploratory behavior and increases in distress when compared to the same room with the mother present (Rheingold, 1969). While toys and other stimuli (visual, auditory, tactile, etc.) must be considered necessary components of Day Care in order to stimulate the child in desirable ways, the caregiver must be alert to the emotional role which she plays in relation to the child's willingness to observe and explore on his own initiative. She must also consider this role in relation to the child's developmental stage. For example, Rheingold and Eckerman (1970) found that infants, in an outdoor setting, tended to go farther away from their mother as they increased in age from 12 to 60 months. Normal detachment seems to be part of the

¹ The consequences of long-term separation are far more devastating; however, since they are not relevant to Day Care they will not be discussed here.

infant's development of autonomy (see Bowlby, 1969). The caregiver can thus increase the child's capability to explore and interact with his environment if she does not remain in continual physical proximity to the child when this is no longer necessary for his development.

Fear of Strangers

While fear of strangers is not a direct indicator of attachment, it is related to attachment behavior and is, of course, relevant to the initial contact between the infant and the caregiver in a Day Care center and to the employment of new workers. The knowledge of such behavior should be relayed to caregivers so that it will be included in their expectations of probable problems which will need to be resolved.

Infants at two weeks of age have been found to show differential reactions to strangers with respect to facial preference (Carpenter, *et al.*, 1970) and by nine weeks to react similarly to being held by a stranger (Ainsworth, 1967). The capacity to make such discriminations is important for the later development of attachment. Although Schaffer (1963) suggests that attachment and "stranger fear" develop concurrently, Tennes and Lampl (1964) found that stranger fear began at five months and peaked at seven to nine months whereas separation anxiety appeared at about eight months and peaked between 13 and 18 months. Stranger anxiety appears to be due to a relatively specific fear of the strange (Freedman, 1961; Benjamin, 1963) rather than fear of the loss of the mother (Spitz, 1965).

Evidence indicates that certain experiences in infancy are related to a lessened fear of strangers at the age of nine months when such fear is typically most intense. These experiences include: 1) a great deal of mother-infant eye-to-eye contact; 2) adequate amounts of auditory and visual stimulation (Robson, *et al.*, 1969); and 3) experiences with a variety of people in daily life (Schaffer, 1966; Collard, 1968). There are some indications that early fear responses have different consequences for boys than for girls (see Bronson, 1968, 1970).

From this evidence we can conclude that the caregiver in an infant Day Care center may inhibit the development of stranger fear by holding, cuddling, providing eye-to-eye contact with the infant and by seeing that appropriate visual and auditory stimuli are provided. However, the caregiver should keep in mind the fact that some infants resist careful, warm handling (for reasons not yet clearly understood). Her approach must be individualized to fit the particular child's preferences.

Conclusions

One can conclude from the studies on attachment that the young infant needs close physical contact with a continuing "mothering" figure who will provide him the needed security to broaden his attachment behavior to include others as well as the desire to explore and learn on his own. The Day Care center should provide such a caregiver as well as a predictable, stimulating environment which will allow the infant to develop into a loving, independent and curious human being. Caregivers should be trained not only in the importance of adult-child-interactions for human development but in the variability of infants which they will encounter in their daily work. They

must be prepared for differences between infants which are influenced by such factors as sex and prenatal influences which lead to differences in alertness, mood and activity level. Further, they must be prepared for short-term shifts in responsiveness, alertness, relaxation, etc., in the same child.

We, of course, cannot provide all the answers about infant variability during the first few years of life. Whether patterns of infant responsiveness are significant for later development is a crucial question which remains to be answered. The existence of Day Care centers would permit longitudinal studies that could contribute significantly to this much needed body of knowledge. Perhaps the most important contribution would be to identify how certain kinds of caregiving patterns influence later growth. Such research has not been sufficiently supported in the past, but its implications for Day Care are so clear that such studies may now be possible.

DEPENDENCY

Dependency is closely allied to the attachment behaviors discussed above. Dependency is expressed by the child in his seeking help with tasks, clinging to adults, and seeking praise or attention. Some of these behaviors are expressions of emotional dependency, while others are "instrumental," that is, usually based on realistic demands for help because of the child's physical immaturity. (For finer distinctions between different dependency behaviors see the chapter by Beller below.)

In considering the development of dependency, one must examine this behavior in terms of age changes in order to determine which dependency relationships will produce satisfaction, the extent to which the child needs other people, and the kinds of situations in which dependent responses arise. Dependency is a somewhat changing phenomenon, one that begins with a particular concern for the mother's presence and affection and becomes increasingly generalized to include a concern for the presence and affection of others, e.g., teachers, peers and eventually, one's spouse (Hartup, 1963). In turn, the means used to obtain assistance from others change over time from the general mode of clinging and crying in infancy to ever more direct and specific techniques of seeking comfort. By the age of four to six, the child can use verbal and physical skills to obtain nurturance.

Dependency may not be related to age because other factors may contribute to maintenance of dependency behavior. Studies show that direct bids for attention, such as clinging, etc., are less mature forms of behavior while seeking reassurance and positive attention are more mature forms of nurturance seeking (Gewirtz, 1948; Heathers, 1955). If children remain fearful and anxious, dependency behavior may persist. Emmerich (1966) contends that one reason dependency seeking behavior changes over time may be due to the frustration that the dependent child encounters when his dependency needs are not met by the teacher. To resolve this frustration, the child may seek attention aggressively and finally develop a form of help seeking behavior which is in effect rewarded by the teacher.

Thus, the more attention adults give to aggressive expressions for attention the more they may contribute to the maintenance of such negative social behavior. There is some evidence to support the argument that paying little or no attention to such negative bids for attention contributes to

a decrease in such behavior, provided that socially appropriate bids for attention are promptly rewarded by attention.

The long-term effects of dependency behavior as expressed in early childhood, however, are not necessarily predictive of such behavior among adults, although more consistency is noted for girls, probably because our society tends to be more accepting of female than of male dependency (Kagan and Moss, 1960).

In short, all children are dependent, both on specific people and for help with specific tasks. How this dependency changes depends upon how it is handled. If immature behavior is the only way the child can get needed attention, then it will tend to continue. If the child is fearful or insecure because of having too many caregivers or insufficient care, he will tend to remain more dependent and more aggressive in his display of dependency. Early dependency does not necessarily predict later dependency, although this trait seems more stable over time for girls than for boys.

However, it appears that when the highly dependent child perceives adults as not responsive to his dependency needs, this results in lowered amounts of learning. It should be kept in mind that such reassurance may be necessary since the dependent child is less well developed in cognitive skills--e.g., conceptual and abstract ability--than the independent child (Wender, et al., 1967). Several studies indicate that there is a relationship between the social rewards available in the learning situations and the child's motivation to learn. The findings indicate that children desire social approval and will work diligently to receive it when they have been deprived (see e.g., Gewirtz and Baer, 1958; Nakamura and Rogers, 1969).

Sex Differences and Child Care Practices Related to Dependency

Family size, as well as the manner in which parents handle dependency, appear to have important effects on dependency behaviors. Among nursery school children, two and three year old boys from large families were found to be more dependent upon teachers than boys from smaller families, especially if they were overprotected at home. These findings were not significant for girls (Marshall, 1961). In another nursery setting, it was found that boys did not differ greatly from girls in the amount of over all dependency; however, boys were more likely to be instrumentally dependent, that is, to ask the teacher for help with a task. Girls, on the other hand, tended to cling more to adults and to employ affection seeking and reassurance behaviors (McCandless, et al., 1958).

Specific parental practices and attitudes appear to influence the maturity level of dependency behavior. Parents of independent mature pre-school children are firm, loving, demanding and understanding whereas parents of immature dependent pre-schoolers are lacking in control and moderately loving or ambivalent (Baumrind, 1967). Highly dependent children also seem to have parents who initially punish dependent behavior but ultimately give the child the attention or help demanded, although, again, there are sex differences. For example, punishment by mothers of dependent behavior in girls does not result in more dependency, as seems to be the case for boys (Sears, et al., 1957). (For further details, see the chapter below by Beller.)

Children who have become highly dependent because of insufficient early contact with a responsive mothering person need more attention and care than children who were not deprived of effective early individual care. This increased attention is necessary if the dependent child is to learn and if he is to seek to achieve. To ignore his dependency needs (for fear of "spoiling" him, for example) will continue to damage his ability to learn -- which, in fact, has already been damaged by the emotional neglect which produced the high dependency.

Sociometric Aspects of Dependency

Dependency behaviors influence relationships with other children. Children who are most dependent on adults are least popular with their age-mates, although the child's tendency to seek attention, reassurance and help from other children may help his popularity (Moore and Updegraff, 1964). Consistent with this result is Heathers' (1955) observation that children between the ages of two and five show a marked decline in teacher dependent behaviors, such as clinging, affection-attention and approval-seeking, but a large and reliable increase in behaviors related to seeking attention or approval among their peers. Stimulation from the teacher becomes less important than stimulation from other children.

Personality Correlates of Dependency

Independent functioning was found to be related to curiosity in four year old boys but it also showed wider individual differences in an insecure situation. Greater curiosity was displayed in a secure situation by dependent girls, and in an insecure situation by independent girls (Lucco, 1967).

Dependency and autonomous achievement striving are not opposites, but have been found to be independent sets of behaviors. These two dimensions are related, however, in that some children manifest conflict over their dependency needs, that is, they have difficulty in accepting their dependency needs and also express difficulty in permitting themselves to seek emotional support. The degree to which a child is in conflict is directly related to his level of autonomous achievement striving.

Conclusions

It appears that dependency is not a stable trait, although it may be fairly stable until the early elementary school years. The caregiver in the Day Care setting should not expect the quality of dependency seeking to be clearly age related; however, she can expect, in general, that direct bids for attention will decrease with age whereas reassurance seeking behaviors will increase with age. Such changes in the forms of dependency may be due to different reinforcements which vary from situation to situation -- e.g., from home to Day Care center. Inconsistency in reward and punishment for nurturance seeking seems to enhance dependent behavior, as do rejection, overprotection and restrictiveness. For highly dependent children, a non-nurturant setting may inhibit learning, especially of complex problems. The motivational variables related to dependency are pervasive and influence the child's intellectual development and performance, as well as his achievement level. In a subsequent chapter, Beller advocates a number of ways that caregivers can be more accepting of the child's dependency needs in order to

help them develop trust in their environment and in the significant adults who are central in their environment. In planning for Day Care, we should remember that the inability to satisfy dependency needs often results in expressions of aggression--our next topic of discussion.

AGGRESSION

There is ample evidence that young children exhibit aggression directly, imitate aggressive acts, and fantasize aggression. Research in this area had centered on the effects of parental discipline on the expression of aggression, on the imitation of aggression, and on the conditions which reinforce aggressive behaviors. From the findings, it is evident that there are clear sex differences in the expression of aggression and the ways in which it is learned. It is also evident that children at all ages are more affectionate than aggressive (Walters, et.al., 1957; Cruse, 1966).

General Differences in the Expression of Anger and Aggression

Between the ages of 15 and 30 months, children's behavior is marked by considerable negativism which is expressed in refusals to comply. Younger children seem to start more quarrels than older ones; however, older children become more aggressive during quarrels. Girls may react during conflicts started by boys but boys cry most from frustration due to difficulty in manipulating materials. Girls reach a peak of angry outbursts at 18 months and then show a rapid decrease in such behavior. At 36 months, boys have twice as many angry outbursts as girls. Girls are submissive or use verbal retaliation in response to aggression whereas boys engage in more conflicts and use more physical contact in response to aggression (Goodenough, 1931; Dawes, 1934; Jersild and Markey, 1935).

In an early study of aggression, Appel (1942) analyzed aggressive episodes in a nursery school. He found that among two year olds, aggressive behavior was evoked by the desire for possession. Among older children, however, aggressiveness involved differences of opinion in planning play activities, although there were many instances of seemingly unprovoked hostility. These trends were consistent for privileged as well as under-privileged groups.

Differences in aggressive behavior patterns have also been revealed through the fantasy elicited in doll play. In one such study, boys showed more aggression than girls and this difference increased from ages three to five. Boys were much more hostile to a father doll than were girls; however, the patterns of fantasy for boys whose father had been away from home for long periods of time was more like that of girls and markedly less aggressive than that of boys whose fathers had been home. No effect was noted for father-absent girls, however (Sears, 1951).

The research literature clearly shows that young children are interested in violence, and that this interest declines more rapidly in girls than in boys (Ames, 1966; Emmerich, 1966; Feshback and Feshback, 1969). The decrease in aggression with age may be related, first of all, to the child's increased competence -- he is less frustrated. Secondly, he is more responsive to social approval as he gets older, and can learn to inhibit, dis-

ocialize his aggressive impulses. Finally, increased verbal skills as a substitute for physical ways of expressing anger.

Day Care worker can expect to see aggression more in boys than in girls -- more in younger than in older children--and more in the less verbal children than in those with more verbal skills.

findings, however, leave unanswered the crucial question: How can children learn to express aggression and anger? The evidence below suggests that such expressions may be imitated or learned and that both verbal and physical expressions are largely fostered by the actions and attitudes of others, particularly those of parents.

Imitation and Learning of Aggressive Responses

Imitation of aggression. Most of the studies of imitation of aggression have been the work of Bandura and his colleagues. They have shown that children readily imitated aggressive behavior exhibited by a model (such as a film) in the presence of that model; that children exposed to models generalized aggressive responses to a new setting in which the model was absent; and that, children who viewed movies of adult models imitated aggressive behavior twice as much as children who were exposed to the films, although imitative aggression was more frequent when the model was a live model than a cartoon model, (Bandura and Walters, 1963; Bandura and Ross, 1961; Bandura, et al., 1963). It has been noted that four and five year old boys willingly attacked without provocation, either a human or plastic clown following an aggressive film. This aggression was shown against the inanimate clown against whom verbal aggression was also directed (Hanratty, et al., 1969).

Effect of parental discipline on the expression of aggression. Numerous studies provide evidence that hostile parents have aggressive children.

Walters (1959) compared child-training backgrounds of 26 aggressive and 26 non-aggressive boys. They found that parents, especially mothers of aggressive boys encouraged, or at least tacitly approved aggressive behavior and were more likely to have aggressive children. Loew (1966) also would support the notion that the environment which fosters aggression, even though only verbally, will produce children who are physically aggressive.

be, in such instances, that the child imitates or models himself after the adult model. It is also likely that he finds his aggressive behavior rewarded and reinforced.

Studies of rewards, it appears that reinforcement for aggression increases the likelihood of more aggression (Cohen and Walters, 1963; Walters, 1963; Walters and Brown, 1963). In fact, it not only increases the likelihood of an aggressive response, but seems effective in changing the type of response (Lovaas, 1961). The importance of reinforcing aggressive behavior is further substantiated by a somewhat opposite finding in child behavior, that is, that children who are trained to control their response to frustration, rather than follow their presumed inclination to aggression, exhibit increased constructive responses along with decreased aggression responses (Davitz, 1952).

While these techniques seem simple enough, they are often employed in an inconsistent manner. As will be noted in the chapter by J. Gewirtz in this volume, the shaping, maintenance and extinction of responses are highly dependent upon the schedule of reinforcement. Thus, it has been shown that aggression which is expressed by children from environments which both punish and reward aggression in an inconsistent manner may be highly resistant to extinction since the rewards are so variable (Duir and Parke, 1970).

The sex and age of the child, in addition to varying schedules of reinforcement, also seem to account for some of the differential effects noted for a given parental or adult response to aggressive behavior in children. For example, there are indications that the effects of restrictiveness at home depend upon the age at which restrictions are imposed as well as the sex of the child.

Restrictiveness during the first three years has been found to have lasting inhibiting effects on both boys and girls; these children become more conforming, less aggressive, and less dominant. In boys from three to six years of age, restrictiveness reportedly generated aggression but this was expressed in socially approved forms, such as competitiveness and indirect aggression toward peers. Girls from three to six who were under the most restrictions were aggressive and not withdrawn but were low in achievement mastery and independence (Kagan and Moss, 1962). Delaney (1965) has also shown that parental restrictiveness is correlated with childhood aggression, particularly in boys.

Permissiveness also shows sex differences. Robert Sears (1961) found that permissiveness, based on ratings of mothers when their children were five years old, was positively correlated with antisocial aggression in boys at ages five and 12 but not in girls.

Studies of parental punitive responses to children's aggression seem to indicate that this practice has similar effects on both boys and girls, that is, physical punishment of aggression tends to enhance aggressiveness in both sexes. Sex differences were noted in one study which found the effect of maternal punitiveness on aggressive behavior to be positive for nursery school boys but curvilinear for nursery school girls. Girls of both high and low punitive mothers showed less aggression in school than girls of moderately punitive mothers. However, a follow-up study undertaken a year later, in which aggression was measured in doll play, suggested that high maternal punitiveness had actually produced as strong an aggressive reaction in girls as in boys but that its expression was inhibited in the schoolroom (Hollenberg and Sperry, 1951; Sears *et al.*, 1953).

Gordon and Smith (1965) also found that boys who had strict mothers, i.e., mothers who were highly punitive toward aggression, had a higher incidence of aggressive responses than boys from less strict homes. They further noted that strict mothers who used physical punishment had aggressive daughters. A positive correlation between aggression in children and the use of physical punishment in the home has been reported by a number of other investigators (Gluek and Gluek, 1950; Sears, *et al.*, 1957; Bandura and Walters, 1959; Eron, *et al.*, 1963). Thus, the answer to the question of whether punishment of aggression reduces aggression seems to be "no."

Conclusions

Summarizing the literature, we find that the frequency of aggressive outbursts are probably declining during the Kindergarten and the elementary school years. However, the rate of decline is less for males than females. Qualitatively, aggression progresses from physical to more verbal expressions as age increases. The parental child-rearing antecedents leading to aggressiveness indicate aggression may be learned or imitated. Parents with aggressive children approve of aggressiveness outside the home and are themselves more aggressively punitive, more rejecting, and use more physical punishment than parents of less aggressive children. The sex of the child also makes a difference. For instance, mothers who are strict tend to have aggressive sons and non-aggressive daughters. Parental punishment of aggression, however, appears to be positively correlated with aggressive behavior in children. While frustration is certainly a major cause for aggression, it may not be the sufficient or necessary stimulus. Situational cues may largely dictate whether aggression will be displayed in frustrating situations. Finally, it appears that a structured non-permissive attitude toward aggression leads to fewer aggressive outbursts than a permissive attitude.

The implications of the findings for child care programs are clear. First, aggressive behaviors are learned by imitation of models as well as responses to frustration. In the former case, adult behaviors, either in the classroom or on television, may become potential sources of such learning. Training of child care workers, especially individuals with limited professional experience, has to be carefully done, particularly in reference to aggression. It has been reported that the less training and education child care workers have, the more likely they are to be punitive and authoritarian. This would contribute to encouragement of aggressive behavior in children.

ANXIETY AND FEAR

Group care of young children can contribute to and maintain anxiety states. Separation of the child from his parents, his having to share child care workers with other children, and his experiences of environmental changes as personnel or physical features of the center change are the types of conditions that may contribute to the child's anxieties. Anxiety can vary in intensity and duration, and the group care situation can affect the development of or reduction of anxiety in the child.

Effects of Parental Practices and Anxiety

Anxiety seems to have its basis in early parent-child relationships. Included in a summary of the variables that characterize significant correlations between parents and the child's anxiety are the following: overly severe punishment and restrictions, the setting of unrealistically high standards, criticism of the child's behavior, inconsistency in the treatment of the child and labile mood swings in reaction to the child (Mussen, et al., 1969). Sarason, et al. (1960) maintain that the anxious child is caught in a bind wherein the parent threatens him with negative evaluations which may cause him to feel hostility toward the parent, a

feeling dangerous for the child to express. Such hostility, however, illustrates the child's need to be dependent on the parent. These same investigators note that mothers of anxious children respond to and evaluate their children in terms of their own standards and needs rather than the needs and values held by the child. The task of fulfilling these high parental expectations lead to anxiety and a negative self-concept. Mothers of highly anxious children have been found to be more defensive, less verbal, and more dependent and anxious themselves (Davidson, 1959) than mothers of children rated low on anxiety (Adams and Sarason, 1963).

The Relation of Anxiety to Learning, Aggression and Dependency

Hill and Sarason (1966) find that children who demonstrate an increase in anxiety over time are also increasingly likely to manifest deteriorating intellectual performance, and that this relationship is especially marked in boys.

For boys, anxiety is related to dependency upon the teacher, inadequacy and insecurity in play, and immature game preference. Anxiety appears to be negatively correlated with direct expression of aggression toward others. However, this relationship may not hold when more dominating, highly aggressive children are absent. Ross (1964) finds that the relationship between aggression and dependency is positive if those very high on anxiety are removed from the sample. In other words, low anxious children are low on aggression, medium anxious children higher on aggression, etc. with the extremely anxious again low on aggression. Dunn (1968) illustrates that lower class children report greater school anxiety than middle class children and Palermo's (1959) data shows that Negro children are significantly more anxious than white children (although he does not indicate whether his sample is of lower class children or not).

While moderate levels of anxiety do not seem to inhibit learning -- and may, in fact, facilitate it -- it has been found that structured learning settings elicit better academic performance from highly anxious children than situations lacking structure.

Conclusions

An examination of parental factors related to anxiety shows that parents with highly anxious children are prone to criticize the child's behavior, exhibit inconsistency in the treatment of their offspring and seem subject to marked mood swings. Further, the mothers of anxious children seem to be more defensive, less verbal, more dependent, and more anxious than mothers of less anxious children. Children who are highly anxious appear to be impaired in their ability to learn.

The implications of these data for Day Care programs, the personality of caregivers, and the need to individualize the child's care seem too obvious to require explanation. Punitive and inconsistent treatment, unrealistic expectations, lack of structure and direction all increase a child's level of anxiety and damage his ability to learn.

SEX ROLE DEVELOPMENT

Children become aware of sex differences at a very early age, and the selection of sex related activities which they choose to imitate obviously has profound implications for the development of their personalities.

Early Awareness of Sex Differences and Behavioral Implications

Two-and-a-half year olds have been found to accurately identify many sex associated objects and indicate appropriate preferences (Vener and Synder, 1966). Brown (1956) and Kohlberg (1966) found that the majority of three year olds they studied could properly label themselves by sex. At this age, some children can distinguish "functional roles" and describe mother concepts (Hartley, 1960). By age four, children studies by Kohlberg (1966) could label the sex of dolls correctly on the basis of clothes and hair styles. However, these children were between the ages of five and seven years before they formed a general concept of genital differences between the sexes, even when parents said they had made children aware of differences from an early age. Other differences, seemingly more socially important to the children, were perceived by age five, e.g., males were viewed as "physically more powerful and invulnerable." Mott (1954) found that four and five year olds described mothers' roles to be housekeeping and child care and fathers' roles as related to earning a living. When parents "cross over" and one does the other's functions, pre-school children see the behavior as "helping" the other parent (Hartley, 1960).

Biller and Borstelmann (1967) summarized studies of behavioral differences between boys and girls of pre-school and early elementary school age and concluded that boys were more object-oriented, more competent in physical activities, more aggressive, more achievement oriented, independent and dominant. Girls at the same ages were characterized as more person-oriented, more competent in verbal communication, more nurturant, submissive, passive, dependent, emotional, polite, tactful and neat.

Effects of Father-absence

Since children learn to act appropriately partly by imitating the preferences and activities of the parent with whom they identify, many psychologists have been concerned with the effects, particularly on boys, of being raised without a father present in the home. Fairly clear data have been gathered on this question, and the findings have obvious implications for the Day Care program.

Father-absence during the first four years of life has been found to be related to less aggression and less masculinity among pre-adolescent boys. Where fathers were absent after age five, boys did not differ from father-present boys significantly. However, the most masculine boys came from father dominant homes (Hetherington, 1965). Similar results were found with a disadvantaged Negro group; pre-school father-absent boys were more feminine, less aggressive and more dependent than father-present boys. No differences were found between father-absent and father-present girls (Santrock, 1970). Biller (1969, 1970) found that absence of the father affected masculine orientation and preference for masculine activities among preschool children.

Can the absence of the father be overcome?

Santrock (1970) studied the influence of parent substitutes and siblings upon sex role development. Four and five year old Negro boys without fathers were more masculine if their older siblings were all males than if they were all females. Father-absent boys with a father substitute were less dependent than boys who had neither a father nor a father substitute.

Observers, in general, have agreed that when the mother actively encourages masculine behavior and preferences in her sons the handicap of an absent father can be reduced in severity.

Conclusions

Children at very young ages are aware of many sex role differences. Day Care workers should expect such awareness to increase over time, with subsequent changes in the sex role behaviors which children assume. There are marked differences, however, in children -- especially boys -- who come from father-absent homes. Generally, this situation leads to more feminine behavior in boys. In this area, Day Care could provide father-absent children with beneficial learning experiences.

Day Care centers have been traditionally operated and staffed by women, and a considerable percentage of children in Day Care centers do not live with their fathers.

Women are not likely to deliberately encourage masculine behavior in children unless they both understand the importance of doing so and are working in a program and curriculum which intentionally includes teaching of masculine activities and preferences.

Ideally, men should be employed as often as women in caregiving roles. Where this does not happen -- as is usually the case -- the program designer must include both program activities and staff training to compensate for the loss of more "normal" ways for boys and girls to learn sex appropriate behaviors.

SELF CONTROL AND MORAL DEVELOPMENT

The young child, as we have seen, has many social and emotional needs for which he strives, in various ways, to gain satisfaction. Yet, in the process of socialization, he learns that his desires cannot always be met, that he cannot act upon every impulse, and that he must learn how and when to make demands of others. It becomes necessary for him to develop inner controls over his own behavior. Inherent in this process is the development of "conscience" and "moral" ideas and judgments.

The degree to which children develop internal controls seems to be highly related to child-rearing practices and to the relationship between parents and children. Warm and loving relationships between parents and children have been found to be highly related to the internalization of restraint rules and "conscience development" (Sears, et al., 1957).

Hoffman and Saltzstein (1967) found that boys high in internal controls perceived their parents as being affectionate. In instances of misbehavior, these parents impressed upon their sons the effects which such misconduct had on their own feelings but used fewer threats and less force than parents of boys who were low in internal controls. Macrae (1954) studied boys (age five to 14) whose parents used strict control. While these boys also obeyed the adults' prescribed regulations, they were less likely than boys from less strict families to act on the bases of reciprocity or mutual consideration and also less likely to be influenced by the values of their age-mates.

Research efforts have focused largely upon three aspects of internal moral action: ego controls (general moral judgment dimensions); resistance to temptation; and impulse control. Some of the major findings in these areas are summarized in the following sections. Included in the discussion also is the related issue of the development of prosocial behaviors.

Ego Controls

Studies of general moral judgment dimensions indicate that moral development undergoes progressive changes over time, and that these changes are highly related to the level of the child's intellectual development.

Between the ages of five and 12, the child's concept of justice seems to gradually change from a rigid, inflexible attitude of right and wrong to a sense of equity which includes a consideration of the situation in which a violation occurs. Piaget (1932) has postulated three states of moral development: 1) a period during which justice is subordinated to adult authority, which lasts until the age of seven to eight; 2) a period of progressive equalitarianism, which occurs approximately between the ages of eight to 11; and 3) a period in which purely equalitarian justice is tempered by considerations of equity, which begins at ages 11-12. Later research has found these stages to be relevant dimensions of change but has found the change to be much less age specific.

In reviewing the studies of moral development, Kohlberg, (1963) concluded that the level of a child's intellectual development is a crucial determinant of moral judgment. This conclusion was also substantiated by his own investigations. In one study (*Ibid*), he asked children, age four and older to evaluate the moral qualities of acts. In one case, the acts were deviant but were followed by rewards; in the other, the acts were conforming but followed by punishment. The youngest children judged acts as good or bad on the basis of the external reinforcement to the action. By ages five to seven, children assigned moral labels to the acts themselves. After age seven, children began to formulate answers indicating the concept of a morally good self. Kohlberg concluded that there are developmental degrees of ability to think abstractly about generalized standards of conduct. He postulated that these cognitive abilities develop progressively from pre-school age -- when most moral acts are based upon externally dictated prohibitions against specific behaviors -- to preadolescence -- when the motivation of the transgressor is considered and the child becomes more aware of the effects actions have upon others.

Resistance to Temptation

Among very young children (ages four to six) the capacity to resist

temptation has been found to be related to increasing age and to be slightly higher in girls than in boys. Among this same group, children who resisted temptation showed high impulse control in other ways, such as avoiding negative behavior directed toward seeking attention from adults (Sears, *et al.*, 1965).

Kohlberg's (1963) summary on moral development indicates that resistance to temptation is positively associated with children's ability to blame themselves. One study compared four year olds who cheated in an experiment with those who resisted the temptation to cheat. The latter group were more punitive later than those who cheated (Burton, *et al.*, 1961). Similar results were obtained from 12 year old children. Non-cheaters increased the harshness of punishment which they said should be inflicted for cheating, after being tempted to cheat. The children who were able to resist temptation criticized themselves for deviating and may have been expressing aggression, stemming from the frustration of having to resist temptation (Mills, 1958).

Despite these findings, the ability to resist temptation may be dependent upon the situation. Low correlations have been found between cheating at home and cheating at school (Hartshorne and May, 1928-30); therefore, punishment of dishonesty and disobedience may be effective in inhibiting such behavior only in situations where punishment is dispensed.

From the evidence, it appears that child-rearing practices and the cognitive status of the child contribute to the development of moral judgments. Understanding the morality of actions in each situation depends upon the level and kinds of abstract cognitive abilities that the child has developed. With developmental changes in cognition from ages six to 13, a shift from reliance upon adult authority to mutual consideration of needs takes place. Personal identification with parents as individuals and fear of loss of parental love and approval are means by which the child grows from external, specific prohibitions to internal moral generalizations. The development of self-critical abilities seems to accompany an internalized resistance to temptation.

Impulse Control

Controlling impulses, learning to delay gratification of needs, and learning to use socially acceptable ways to achieve gratification are crucial to the development of civilized people. How the Day Care workers deals with children's needs and demands can significantly affect the children's development of internal controls.

One major distinction we can make in briefly discussing this important dimension of personality is that between impulsive behavior and reflective behavior. The first refers to immediate, direct action to satisfy an immediate need; the latter to behavior which follows a period of reflection -- of thinking about a need before acting on it. Whether a child is impulsive or reflective becomes apparent when he is faced with a problem in which he is uncertain as to whether he is to respond quickly or accurately. If he is more anxious about making an error he will act reflectively; if quickness of response is given more value, he will react impulsively (Kagan, 1966). Yando and Kagan (1963) have shown that children who have reflective teachers become more reflective while the students of impulsive teachers do not clearly exhibit this trend.

In summary, the characteristics which reflective versus impulsive children exhibit are the following: reflective children make fewer reading errors, they are more analytical on conceptual tasks (Kagan, et al., 1964); use inductive reasoning more easily (Kagan, et al., 1966) and boys at least may view themselves as more competent. Additionally, it has been shown that reflective children systematically eliminate incorrect answers while impulsive children are more concerned with responding quickly and consequently give erroneous responses (Siegelman, 1966; Drake, 1970). Finally, when peers rate their impulsive playmates, they are characterized as more "bossy, wiggly, chance-taking and showing off" (Sutton-Smith and Rosenberg, 1961). The authors feel that the ability of peers and teachers to easily identify such children is due to the "obtrusive value" of their behaviors in the classroom.

Development of Prosocial Behaviors

Many current programs for young children have as one of their goals the development of generosity and cooperation among children. Certainly, such traits simplify the management of groups and reduce conflict. The literature of research in the development of such behaviors is quite extensive, and the interested reader is referred to the reviews by Bryan and London (1970) and Krebs (1970).

This discussion will be limited to some of the more salient generalizations from the research, and is therefore, little more than a conclusionary statement which includes implications for Day Care.

First of all, children tend to act with generosity because it leads to rewarding expressions of joy from the recipients of their generosity. If this rewarding approval is from people who are important to the child, such as his parents, the value of the reward seems greater.

Secondly, the child is more likely to be generous if the parent of his own sex is generous.

Third, generosity appears to increase with age, and gradually changes from indiscriminate "giving" to carefully figured "sharing."

Instruction to be generous may be effective at the moment, but having a generous model to imitate seems to have longer lasting effects on behaviors. A combination of examples and instruction may be the most effective way to produce altruistic behaviors in young children.

Here again, selection of the Day Care Worker will determine the kind of behaviors the children will imitate, and unless the caregiver is "naturally" generous, such behavior is not likely to be prevalent among the children she works with.

Conclusions

Child-rearing practices and the cognitive status of the child contribute to the development of ego controls, mature moral judgments, the control of impulses and the development of prosocial behaviors.

From the ages of six to 13, there is a shift from reliance upon adult authority to mutual consideration. Personal identification with parents and the desire for their love or approval are instrumental in the growth of internal moral generalizations that relate to one's self and one's actions toward others. The ability to learn to criticize one's self seems to accompany resistance to temptation.

Self-control implies appropriate emotional expression. Some children learn to control their impulses better than others and become more "reflective" in their behaviors. The obvious advantage of encouraging reflective behavior in children has clear implications in Day Care. Rather than simple punishment or obtrusive or disconcerting impulsivity, the carefully trained teacher would probably be more effective if she watched for opportunities to encourage and reward reflection.

The social and emotional development of children is enhanced by the kind of environment created for the children and particularly by the behavior of the caregiver. This chapter has endeavored to provide helpful information for Day Care programs as this information comes from research knowledge.

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CHAPTER 5

COGNITIVE DEVELOPMENT AND PROGRAMS FOR DAY CARE

Jerome Kagan

The members of every well functioning society share a small set of basic beliefs which, although usually unspoken and unanalyzed, guide the way children are handled as well as what they are taught. These premises surface into more explicit form whenever the society invents a new educational or child-rearing procedure because it must rationalize the new procedure and logically incorporate it into the structure of the basic premises. For example, one of the assumptions of American culture is that every child requires the love of his parents. When bottle feeding became popular 30 years ago, doctors and psychologists helped the mother accept this substitute for nursing by reassuring her that if she held and talked to the bottle fed infant he would receive sufficient affection.

During the last decade our society has greatly expanded Day Care for young children. It is possible that Day Care services, which are currently used by only a small proportion of the population, will become within 20 years a modal form of child-rearing. The significant factor in this social change is not that someone other than the biological mother is caring for the child. This type of arrangement is common over the world, for mothers of many societies have given responsibility for their young children to older siblings, grandmothers, aunts, and "hired help" because they needed assistance in the rearing of the child. But in each of these arrangements the parent knew and often had a close social bond with the substitute caregiver. There was an implicit social contract between the biological parent and the supplementary caregiver.

The concept of Day Care in western society may be historically unique because the substitute caregiver is often a stranger who never meets the mothers of the six, 12, or 18 different children for whom she is responsible. There is no binding social contract between the caregiver and the biological parents. Although there is no a priori reason to suspect that this arrangement is either beneficial or harmful to the child, many social scientists and government officials are showing some concern over the possible effects of this form of rearing children. They are attempting to determine possible consequences of varied forms of Day Care, and suggesting curricular procedures to be used with children who spend part or all of every weekday in a setting other than the home, with adults and children with whom they have neither a genetic nor prior social relationship.

The invention of procedures to guide the care of children must be influenced by some idealized goal that parents want to attain. That is, there is no "perfect" set of experiences that every infant or young child needs, independent of the type of adolescent the society wants. Most psychologists and educators who are devising and using curricula for children in Day Care avoid the trying task of stating what the ideal ten or 15 year old should be like. However, the similarity in tactics across these varied programs suggests that the educators, parents, and caregivers must

tacitly agree on what an American child should become and what it requires to get him there.

Four primary assumptions that give direction to most educational procedures can be stated simply. Most Americans believe that the young child should:

- (1) feel loved and valued by the adults who care for him, and develop trust in, and affection and respect for those adults, so that in the future the child will
- (2) develop an autonomous identity and believe that he can determine his own actions and decide what he alone should believe,
- (3) be free of fear and anxiety and be able to enjoy life,
- (4) develop his intellectual capacities to the fullest and perform with competence on those problems society presents to him.

It should be appreciated that although these simple premises may be shared by most members of our society, they are not shared by all cultures. The Japanese, for example, believe that a person should not be completely autonomous. Rather he should develop a readiness and willingness to rely on adults for help and support. Such behavior is usually regarded as childishly immature in American adolescents or adults. Thus, all societies do not agree on the ideal psychological characteristics that their children should possess.

Although these four premises are usually stated as individual propositions, it is generally acknowledged that they are, in practice, inseparable. Most psychologists believe that a child who has been harshly treated by adults is likely to fear and hate them, doubt his power to behave autonomously, be chronically unhappy, and poorly motivated to learn intellectual skills from parents, teachers, or other adults. There is, therefore, a close relation between a child's early emotional relationships with adults and his growing cognitive competence. Since this chapter is concerned primarily with cognitive, rather than with emotional or motivational development, we will assume that the child's experiences with the adults who care for him are generally satisfactory and will concentrate on intellectual development. Satisfying relationships with adults are not the only forces that sculpt adequate intellectual development. There are important psychological principles to be considered in the construction of curricula for Day Care programs.

What is Intelligence and Intellectual Development?

There is considerable controversy surrounding the meaning of intelligence and intellectual development, and several seriously different conceptions of this word, to say nothing of the idiosyncratic definitions held by parents. Some mothers, for example, regard intelligence as the ability to speak rapidly and fluently; others believe it is the ability to avoid coercion or capture by adults.

Briefly, there are four major attitudes toward the term "intelligence."

The first views intelligence as the ability to adapt to the specific environment in which one lives. A child residing in an urban ghetto has to learn a set of habits to survive that are different from those learned by a child on a thousand acre farm in one of the plains states. The child who is best adapted to his specific niche might be regarded as highly intelligent. This definition has never become popular because it makes it impossible to assess the intelligence of all children on one standardized scale.

Professor Jean Piaget of the University of Geneva, one of the century's leading psychologists, views intelligence as that set of processes that allows the child to adapt to the demands of his environment. But the major demands, for Piaget, are cognitive, not physical, or social. Piaget regards intelligence as the coordination of mental operations that facilitates adaptation. An operation is a special kind of mental process that permits the person to understand experience, and to reason about problems. Intellectual growth, for Piaget, is the continual conflict between using old ideas to solve new problems in contrast to altering the old in order to cope more successfully with the novel demand. The transformation of old ideas leads to a better adaptation to the environment.

The most popular American view regards intelligence as a generalized ability to learn a new idea or skill easily, regardless of the nature of that skill. Thus, a highly intelligent child should learn to solve all varieties of problems faster than a less intelligent child. The continued use of the Stanford-Binet or the Wechsler intelligence tests, with their accompanying IQ scores, rests on this assumption.

A final view, represented by Professor J.P. Guilford (1967) of the University of Southern California, rejects the idea of a basic and generalized intellectual ability and suggests that we must analyze all mental functioning into a set of different capabilities. Guilford argues that some children are good at memorizing words but poor at geometry; others are outstanding in reading maps but cannot learn to spell. This chapter is friendly to Guilford's position and argues that it is useful to regard cognitive development as consisting of patterns of change in separate cognitive units and processes.

However, this analytic attitude toward mental ability is opposed by a very human tendency to want to rank order people and things into categories of good, better, best. We are not satisfied with noting that the rose is a deep red, but feel pressed to add that it is the loveliest flower in the garden. There are very few cultures known to man that do not have special words to describe how competent a person is, and these words imply that certain skills are better than others. However, the skills that are tagged as "better" tend to vary with time and social group. There is a strong disposition to use the word "intelligence" to refer to those talents one's society values at a particular time. For example, in the late 19th century, Francis Galton suggested that people with extremely sensitive vision and hearing were intelligent. His view reflected the dominant brain theory of the day which emphasized the importance of transmission of outside sensory information to the central nervous system. Today we emphasize language and reasoning because our theories of the brain have changed. But we still use the word "intelligent" to designate persons who have more of those skills that are considered better by society.

A word must be said about the inheritance of intelligence, since it has become such a searching issue. Many people believe that intelligence, no matter what the definition, must be related to differences in organization of the brain and controlled by differential heredity. However, it must be noted that no psychological characteristic is inherited independent of a specific environment in which the organism grows. Although human beings possess the hereditary capacity to be born with hands, if the prenatal environment is altered -- as in the case of the mother who might have taken thalidomide -- that hereditary capacity may not be evidenced and the child may be born without hands. Similarly, some children are born with a hereditary capacity to develop a form of mental retardation called phenylketonuria. However, by feeding this child a proper diet early in life this disease process is aborted. If the effects of heredity can be altered for limbs and physiological disturbances, it is likely that the ability to solve problems on intelligence tests is also a serious function of environmental forces. It is not possible to state, given current knowledge, the limits of a child's intellectual capacities. Since most poor children in the United States grow up in environments different from those of affluent children, we are not able to conclude that differences in IQ between lower and middle class populations are the result of heredity.

Finally, it must be noted that many children show dramatic changes in intellectual competence and in tested IQ across the first 15 years of life. Thus, there is considerable plasticity in the child's intellectual functioning. It is the belief of this author that the concept of intelligence, as used today, is too general to be of much theoretical use, and it is hoped that the concept of the IQ will be a less central idea in the future than it is today.

Although many investigators who evaluate Day Care programs, their own or others, use a standardized IQ test like the Bayley, Gesell or Stanford-Binet, they do so not because they believe in a generalized intelligence, but because IQ tests are the best standardized instruments available. Often these investigators do not have the time to develop evaluation instruments that might assess the many separate aspects of cognitive functioning. Many of these investigators, together with psychologists and educators, often assume that language facility, memory, capacity for imagery, inductive and deductive reasoning are somewhat separate cognitive capabilities that are not always of uniform quality in a particular child (Karnes, Zehrbach and Teska, 1970).

A major research issue then is the construction of assessment procedures for cognitive units and processes considered in this chapter. In addition, since the child's cognition is affected by aspects such as social-emotional development, we need procedures to assess motives, standards, sources of anxiety, and the profile of a child's identification with role models. We should gradually replace the IQ both as theoretical idea and as a score used to rank order children with more comprehensive and meaningful assessment procedures.

This suggested assessment should certainly include memory, generation of hypotheses, "reflection-impulsivity," persistence with problems, habituation in infants and reaction to discrepancy in infancy. Ideas for assessing these will be discussed, where relevant, below. Such assessment

should also include language competence. This means that we need to construct tests of recognition vocabulary and sentences in order to assess the child's ability to comprehend words. We should also assess the complexity and length of spoken utterances and spontaneous speech in informal as well as in standardized contexts.

In short, we need to develop a much more comprehensive set of assessment procedures if we are to facilitate the development of the entire spectrum of cognitive competencies. Because this author believes that the development of this entire spectrum of cognitive competencies should be our goal in Day Care programs, it seems fitting to describe these separate components of cognition, and to note how they might be acknowledged in the design of future programs.

What is Cognition?

Cognition refers to a set of units and a set of processes that manipulate these units in the complex phenomena popularly called thought. The first function of cognitive activity is to help the child make sense of his experiences. If he witnesses an unusual event he does not instantly understand, he reaches back into his mind to pull out an explanation that will put him at ease again. The solving of such problems requires a rich repertoire of knowledge and a desire to understand the unusual. A second function of cognition is to communicate thoughts and wishes to others. Finally, cognition permits the pleasure that comes from having a good idea, which is one of the basic sources of joy nature has permitted man.

A useful approach to cognition asks four questions:

- (1) What are the units involved in cognition?
- (2) What are the dynamic processes that manipulate the units?
- (3) What are the purposes of cognition?
- (4) How does cognition develop?

The growth of a tree provides a helpful analogy. The tree's units are its leaves, branches, trunk and roots; its basic processes are absorption of chemicals from the ground and energy from the sun, internal transmission of fluids, and the production of chlorophyll. The purpose of all this activity is to allow the tree to grow, resist disease, and remain healthy for the longest possible time, and this growth passes through a series of stages that begins with a seed and ends with a 100 foot mature plant. However, there is still much mystery surrounding the mechanisms of growth for both tree and child.

The units in cognition. The basic units consist primarily of schemata, images, symbols, concepts, and rules.

The schema. The schema, which is the child's first acquired cognitive unit, is a representation of the central aspects of an event. The schema is neither an image nor a photographic copy of the event, but resembles a blueprint in preserving the arrangement of a small set of significant

elements. If the reader imagines his childhood home or a favorite restaurant he will note that the representation highlights a few critical features, perhaps an unusual painting or an odd chair. The critical elements provide distinctiveness, for the schema resembles the cartoonist's caricature in its exaggeration of the most salient elements of a person's face.

During early infancy, the significant elements of an object can include the sensory representations of the infant's actions toward the object. Thus, a baby can represent, or come to know, his favorite rattle through its visual appearance, as well as through his actions toward it. Both Piaget (1952, 1954) and Professor Bruner of Harvard University (1966, 1968) emphasize the importance of sensorimotor actions with objects for the infant's cognitive growth. Piaget talks of the acquisition of sensorimotor schemes; Bruner speaks of the enactive mode of understanding the world. Most curriculum programs for infants in Day Care follow the persuasive arguments of Piaget and Bruner and consequently, there is a heavy emphasis on play with attractive objects. Many child educators including Weikart (1969), Gordon (1969), Dunham (1969), Caldwell (1968), and Keister (1969) encourage the caregiver to give the infant toys he can shake, rattle, push, and pull. It is assumed that these experiences not only teach the infant about the object, but also, as a dividend, persuade the infant that he can have an instrumental effect upon the world. The single most common element in all Day Care programs for infants in the United States is the presence of toys that invite the infant to manipulate them and provide him with distinctive sensory feedback. Although this procedure seems intuitively reasonable to us, and follows from the writings of Piaget and Bruner, it should be pointed out that it is not obvious to all parents and professionals. Some Dutch physicians in the eastern part of the Netherlands tell mothers not to give the baby toys to play with and suggest that they minimize the amount of stimulation and play that the infant experiences during the first eight to 12 months of life. Although these children seem intellectually adequate at age five, they are retarded on the Cattell intelligence test at one year of age (Rebelsky, n.d.).

Images. A schema is not synonymous with a visual image, for the child can have schemata for voices, melodies, odors, and textures. The image is a special and more elaborate structure which is related to the schema and more easily manipulated. However, like the schema, it preserves the unique pattern of physical qualities in the event. Perhaps the best way to regard the relation between schema and image is to view the former as the basic skeleton from which a more holistic representation is built. A schema is used to construct an image when cognitive processes perform work on or act on the schema. Bruner (1966) has suggested that the image develops later in development, sometime after the first year, and refers to this period as the ikonic stage of development.

Symbols. Symbols are different from both schema and images, because they are arbitrary representations of specific events in the world. The best example is the name for a letter, a number or animal. A child who can name the arbitrary patterns of lines we designate as the letter M and can point to an M when asked, possesses the symbol for that alphabetic letter. Symbolic function typically begins around 18 months of age but can emerge as early as one year. Most Day Care programs encourage the development of symbols, especially linguistic symbols, by encouraging the caregiver

to begin to name objects in the child's environment as soon as the teacher feels the child can understand them.

Concepts. All concepts are symbols but they are much more than that. A concept stands for a set of common characteristics among a group of related schemata, images, or symbols. A concept is a representation of features common to a variety of experiences. Consider the drawing of a cross. The eight month old infant represents the cross as a schema. The three year old, who may call it a cross, represents it as a symbol. The adolescent who regards it as the cross of Christianity and imposes on it a host of associations involving religion and church possesses the concept of cross. A concept is not always tied to a verbal name or language category and some concepts can represent common sensations or images. Concepts differ in complexity, or the number of dimensions needed to define them, as well as their accessibility to consciousness.

One of the serious conceptual difficulties pre-school children have is the tendency to regard a concept's meaning as absolute, rather than relative. When the four year old first learns the concept dark, he regards it as descriptive of an absolute class of color -- black and related dark hues. The phrase "dark yellow" makes no sense to him, for dark signifies dark colors, not relative darkness. One can readily see the difficulty that might ensue when a teacher is trying to communicate about the relative magnitude of numbers. The child learns that one and two are small numbers and the young child may not understand the question: "Which is larger, one or two?" It is important to teach the child to appreciate both the absolute and relative qualities of many concepts and to persuade him that the same concept can have several different meanings. This goal can be facilitated by procedures that persuade a child that familiar things like newspapers, oranges, or even himself can be regarded in different ways. An orange is a good thing to eat, but a bad thing to bounce. The child, himself, is many things: he is a boy, the son of a father, possibly the smallest child in the family, or the largest child in his classroom. Professor Irving Sigel of the State University of New York at Buffalo (Boger and Sigel, 1970) has demonstrated that it is possible to train the young child to appreciate the various dimensions of concepts, and this seems to enhance the acquisition of concrete operations. Many curriculum programs explicitly provide training in relative concepts (Palmer, 1969; 1970; Schaefer and Aronson, 1971).

Rules. There are two kinds of rules. One type states a relation between two concepts. The rule "water is wet" states that the concepts water and wet are related, because one of the dimensions of water is the quality "wetness." Similarly, the rule "showers occur in summer" states a relation between two concepts. A second type of rule is a mental procedure or routine imposed on two or more concepts to produce a new one. Multiplication is a rule imposed on two numbers to produce a third. We call these rules transformations. Piaget claims that there are stages in the acquisition of rules. The appearance of stages in the child's thought can result from the fact that rules that are learned initially are difficult to replace. They stubbornly resist retirement for they have been effective in the past. A child's rule, like a scientific theory, is never replaced by criticism alone, only by a better set of concepts and rules.

Professor John Flavell (1970) has recently performed a developmental

analysis of concepts and rules. Flavell suggests that cognitive development can proceed in five different ways -- through addition, substitution, modification, inclusion and mediation. In addition, the child merely adds a new idea to his structure of facts (e.g., he learns that baby swans are called cygnets). In substitution, a new idea replaces an older one (e.g., the seven year old learns that a given amount of candy remains the same amount regardless of how many pieces it is broken into). In modification, an old idea is transformed (e.g., the child learns that all men are not daddies, only men who have children). In inclusion, an idea is related to a larger set of integrated beliefs; a concept that was initially separate is integrated into a larger system (e.g., the child learns that plants are also regarded as living, where previously he thought that only animals were alive). Finally, in mediation, an idea suggests another idea, but is not a part of it (e.g., the child learns to give himself verbal instructions to slow down and be careful while he is doing an arithmetic problem, and this self-instruction helps his performance, although it is not part of the performance).

A crucial research issue concerns the hypothesis that there is a major shift in the child's quality of cognitive organization and attentional capacity between five and seven years of age. This change focuses on the child's capacity to attend to and retrieve events. Sheldon White (1965) has argued most vigorously for this idea. Inquiry into the validity of this hypothesis should be supported because it implies that curriculum programs should be tailored to the child's position on this developmental transition. If the hypothesis has validity then we need sensitive procedures to assess each child's position during this important psychological transition.

Implications for Curricula with Young Children

The above analysis of concepts and rules has important implications for changes in existing curricula and for the invention of new ones. The single major criticism of existing curricula is the heavy emphasis on teaching verbal concepts and rules, with minimal appreciation of the variety of concepts and rules, and minimal acknowledgment that the child's developmental stage is an important determinant of his ability to understand a new cognitive unit. One of the major missions of this chapter is a plea to new curriculum makers to attend to these ideas. Both teacher and curriculum maker should systematically analyze the major concepts to be presented to the child. Concepts differ in essential dimensions and tutors should work first with those dimensions that the child already knows.

Curriculum programs should be designed to compare and contrast related concepts that the young child knows, like boy and man, water and ocean, fruit and vegetable and to encourage the child to generate the essential dimensions of each idea. Curricula should provoke the child to analyze the essential dimensions of popular concepts. There will be disagreement among the children on the central dimensions and the teacher can use this disagreement to discuss the fact that children and adults have different points of view on everyday issues. The teacher who gains an easy competence at this analysis will be in firmer control of her presentations, more confident of her ability, and in a much better position to diagnose blocks in learning when they occur. There is an enormous benefit to be gained from the daily application of an analysis of conceptual dimensions, and

diagnosis of the child's state of understanding.

Cognitive processes. The basic units of schema, image, symbol, concept, and rule, have been defined and we turn now to the cognitive processes that manipulate these units in thought. Cognitive processes include two general types, undirected and directed. Undirected thinking refers to free associations, dreams, fantasies; the free flow of thoughts that occur continually as the child walks home or stares out the window. Directed thinking, by sharp contrast, refers to the processes that occur when the child tries to solve a problem that is given to him or one he has set for himself. He knows there is a solution to the problem and he knows when he has arrived at an answer. This problem solving process typically involves the following sequence: comprehension of the problem, memory, generation of possible solutions, evaluation, deduction, and, under special circumstances, reporting the answer to someone. Each of these processes is important and many curriculum programs have neglected one or more of them.

It is helpful to appreciate the general changes that occur during the period one through eight years of age. The richness of the child's supply of symbols, concepts, and rules increases each year and these units undergo continual reorganization as a function of experience. The child becomes increasingly concerned with the amount of agreement between his concepts and those of others, and he becomes more apprehensive about making mistakes. His ability to remember things and to retrieve what he knows improves dramatically. But perhaps the most important change is that he begins to approach the adult level in his conception of problems and the rules he activates to solve them.

Curriculum planning. There are several implications that follow from this discussion. First, curriculum programs for pre-school children should acknowledge the importance of all the cognitive units and processes discussed in this chapter and not devote exclusive tutorial attention to vocabulary building, which is a common curriculum emphasis. Second, a concept should be presented as part of a richly interconnected set of concepts that is related to a problem and not introduced to the child in isolation. We hope that the concepts taught in Day Care programs will have the characteristics of breadth and want the child to realize that the salient determinants of a concept depend on its functions. Also, the child should be able to use those concepts in the solving of problems. Curriculum planning should involve presentations of attributes of concepts in many modalities. For example, suppose the concept to be acquired is "living." The central dimensions of this concept are irritability, mobility, and capacity to reproduce. Verbal presentation of the attribute should be presented, but also the child should be able to use the haptic mode in order to understand this dimension. Similarly, if the concept of "wind" is to be introduced, it should be presented simultaneously along with the concepts of water, storm, hurricane, and the generalized concept of air. It is important that the rules that involve the concept "wind" be presented, such as, air causes things to move, air flows, and air contains water. Concepts should be used as part of a system.

It is also important to give the child practice in the generation of ideas, a disposition often labeled curiosity. Inability to generate hypotheses is occasionally due to fear; however, equally often it is due

to the absence of a mental set one that provokes the child to try to understand the unusual, to explore new objects.

Comprehension of the Problem

Understanding the problem, which must be the first process in problem solving, requires selective attention to the salient aspects of an event and organized interpretation of the information in the event. Many problems are presented in the verbal mode and, therefore, the richer the child's vocabulary and language concepts, the more successful his understanding. This is one reason why the majority of preschool curriculum programs emphasize the teaching of language. (See Deutsch, 1967; Schaefer and Aronson, 1971). However, if the child becomes accustomed to using only language to understand and think about a problem, he may fail to develop other strategies. Problems should be presented occasionally in non-verbal modes, including visual imagery and action (see Blank, 1970, 1971).

The young child has some difficulty focusing attention on more than one event at a time. If he tries to listen or watch many things at once, he often becomes confused. The teacher should appreciate this vulnerability in the young child and try to guarantee that she has the child's attention when she is talking to him. The best way to accomplish this goal is to have an adult working with only a small group of children. Since it is impossible to have a half dozen certified teachers in every Day Care center, paraprofessionals must be used. Mothers, older children, college and high school students are an excellent reservoir of needed talent and help.

These problems give rise to the need for procedures to assess:

- (1) Persistence with problems - We wish to assess the child's tendency to continue to work at a meaningful problem despite the fact that he is unable to solve the problem at the moment. The major obstacle in devising this kind of test procedure is the creation of a problem that is of optimal interest to all children, regardless of their racial, ethnic, or socioeconomic position.
- (2) Habituation in infants - Rate of habituation to meaningful and non-meaningful stimuli in the young infant is one of the most important constructs to assess during the opening two years of life. Infants over four months of age show gradual habituation to repetitions of visual and auditory stimuli and failure to display habituation may reflect deviant intellectual development.
- (3) Reaction to discrepancy in infancy - The child's disposition to react to a transformation of a habituated stimulus with a longer orientation or an emotional response (like vocalization or smiling) is an important index of his cognitive development. Test procedures to evaluate this disposition should be constructed.

Memory

Memory refers to the storage of experience. There are two major

memory processes, short-term and long-term memory. Information in short-term memory is typically available for 15 to 30 seconds as, for example, in the easy forgetting of a new telephone number after it has been dialed. Unless one makes a special effort to transfer the perceived information to long-term memory some or all of it will be lost. Young children display a poor memory because (a) they have a less adequate set of cognitive units to label and "chunk" information and place it in long term memory, (b) they have not learned the trick of rehearsal and do not spontaneously repeat events to themselves in order to aid long-term memory and, (c) they are not efficient at retrieving what they know. The teacher should initiate exercises in which the child is taught memory tricks, ways of grouping words, numbers, or pictures and strategies of free associating that will aid later recall. Anxiety also impairs memory by interfering with focused attention. Teachers and curricula can help the child develop strategies for placing new knowledge in memory as well as for searching memory when the time comes for retrieval of what he knows. Further, we should construct standardized tests to assess the child's ability to hold information in memory, and a series of immediate memory tests with both meaningful and non-meaningful material.

Generation of Ideas

The comprehension of a problem and remembering it are typically the first two processes in any problem solving sequence. The third process is the generation of possible solutions, the inventing of alternative ways to solve the problem. The child is motivated to seek solutions whenever he comes across a problem or situation he does not understand, or a problem for which he does not have an immediate answer. The child sees his mother weeping or watches a bird unable to fly. These events create a state of uncertainty because he cannot explain the event. He wants to resolve this uncertainty, to understand the experience, and so he dips into his reservoir of knowledge and searches for cognitive units that will allow him to explain what he has seen (Hunt, 1963). One of the major obstacles to the generation of good ideas is the possession of beliefs that conflict with good solutions. A set of firmly held ideas that are inconsistent with the required solution can lead to rejection of the creative idea, should it occur. Anxiety over possible criticism for suggesting unusual ideas also can be inhibiting, because fear typically blocks creative solutions. The easiest and most common reaction to fear of error is to withdraw from the task or, if the fear is mild, to inhibit offering answers. Every preschool teacher recognizes this syndrome, because each group has a few children who are intelligent but overly inhibited. They know more than they are saying, and censor good ideas because they would rather avoid making a mistake than risk the joy of success. The teacher must reduce these fears by encouraging guessing and convincing the child that honest approximations are better than no response, that any attempt is better than none.

Finally, one must appreciate that the child's concepts and rules are often initially limited to the materials that were used to teach the concept or rule. Most children learn rules and concepts to the specific materials they encounter, and do not easily retrieve them when they are applicable to a new problem. It is useful to build in a broad array of examples during the initial instruction. For example, in teaching the

children about animals or plants, the teacher should span the breadth of examples from the tamest to the wildest animals, from the most exotic to the plainest. The plea is to expose the child to multiple applications of basic concepts and rules so that the new knowledge is not tied rigidly to a narrow set of instances. We want also to assess the child's ability to generate ideas in the form of a trait often called divergent thinking. The simplest form of this ability is seen in guessing games. One typical test item involves giving the child the stimulus of an object and asking him to guess the object intended.

Evaluation

Evaluation refers to the degree to which the child pauses to evaluate the quality of his thinking and the accuracy of his conclusions. This process influences the entire spectrum of thought, including the accuracy of perception, memory and reasoning. Some children accept and report the first hypothesis they produce and act upon it with only the least consideration for its quality. These children are called impulsive. Others devote a long period of time to considering their ideas and consider many hypotheses. These children are called reflective. This difference among children can be seen as early as two years of age and seems to be moderately stable over time. Fortunately, the child's disposition to be reflective or impulsive can be modified by training (See Meichenbaum and Goodman, 1970; Ragan, 1971). Further, the child's tendency to reflect upon the validity of his answers in problem solving situations, in contrast to impulsive choices, should be assessed. This disposition influences the quality of his performance on a variety of problem solving procedures.

Implementation of Ideas: The Deductive Phase

Deduction or implementation is the application of a rule to solve a problem. There is much debate over whether there are basic changes in the child's understanding and use of rules during the first 12-15 years. Some psychologists agree the child merely learns more and rules each day; that he stores these for future use, and that there is no rule too complex for a child to comprehend and apply. The alternative view is that more rules are inherently too difficult for young children to understand because of maturational stages in the development of thought. Piaget favors this second view and there is some support for his position.

Implications for Educational Practices in Day Care centers

A good Day Care program should promote the adaptive use of all the cognitive processes, not just one or two of them. As indicated earlier, a serious deficiency in many Day Care programs, even those that are primarily cognitive in nature, is the almost exclusive emphasis on language and vocabulary, especially language categories for objects and events which are viewed as factual. A group of leading preschool educators recently prepared a document entitled "Fundamental Learning Needs of Today's Young Children" (prepared by the Committee for Early Childhood, New York City, for the National Association for the Education of Young Children). The report stated that the requirements for three to five year old children are to: (1) develop language skills, (2) develop mathematical understanding, (3) learn about the world through stories, books and games, (4) develop

large and small muscle coordination, (5) discover how things work, (6) learn about living things, (7) develop a relationship to art experiences, (8) learn about safe and healthy modes of group life, (9) develop a zest for learning.

Although each of these goals is important to promote, there is minimal concern with perception, analysis of concepts, improving memory, evaluation, the generation and implementation of rules, building expectancy of success, or reducing fear of error. Too many programs strive to teach little bits of knowledge about everyday experiences and do not pay sufficient attention we believe, to procedures that encourage inquiry and thinking and reduce anxiety over error. There is certainly no quarrel with the effort to teach the child new facts and vocabulary. But other cognitive structures and processes should also be nurtured. Moreover, many curriculum programs for young children do not reflect a concern with the function of cognitive units and teach new skills or facts that are not integrated into the larger structure that we call thought. Curriculum programs of the future will have to be based on a less arbitrary selection of program, and be more theoretically tied to the principles and empirical facts that have been gathered to help us understand cognitive development.

Finally, there must be serious acknowledgment of the ethnic relevance of curriculum content. Representatives of ethnic groups rightfully insist that the child should be taught new ideas, both in a language and with materials which are familiar to the child. The Spanish-American six year old who knows little English should not have to adapt abruptly to an English speaking nursery teacher who knows little Spanish. The child from an urban area should not suddenly encounter toys or games that are not in accord with his prior experiences.

If Day Care is to be successful, we should develop assessment procedures to determine whether the curriculum content is relevant to the ethnic groups in the programs.

Another research theme important to the Day Care context engages the ideal ratio of adult to child. This is a complicated question which should be worded by asking about the optimal ratio for particular activities at particular ages. It seems likely that when one is trying to teach a five year old child to read, the ratio should be different than when one is playing or watching a group of napping three year olds.

Perhaps the most important research effort should be concentrated on the dynamics of reading and the multiple causes of reading failure. Such work should receive the highest priority.

Training

The training of Day Care teachers is one of the most pressing and major problems of the future. It is inordinately difficult to train Day Care personnel by textbook, and audiovisual aids and workshops are mandatory. It is recommended that a series of training films be made which exploit some of the suggestions set forth in this chapter. The use of such visual aids in closed circuit television should be extremely helpful. Finally, previous experience with short-term summer institutes indicates that this

is a profitable form of training for the large number of Day Care personnel that will be necessary to staff the many Day Care centers of the future.

A final research issue contains a nest of related questions related to the use of paraprofessionals. We must determine if high school and college students can be effectively involved in Day Care centers and if any special selection is necessary.

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CHAPTER 6

LANGUAGE DEVELOPMENT IN DAY CARE PROGRAMS

Courtney B. Cazden, Joan C. Baratz, William Labov, Francis H. Palmer

One of the responsibilities of any Day Care center is to extend each child's verbal abilities. This means continuing his learning of the structure of his native language or dialect, and probably helping him learn standard English (SE) as well. It means extending his repertoire of words and meanings for talking about the objects, events and ideas in his expanding world. It means giving him rich opportunities to use language for private thought and for social communication in ways satisfying to him and important for school success.

In this chapter we will talk about the conditions that should be present if this responsibility is to be fulfilled. We will not discuss specific curriculum options because these will be presented in other documents on Day Care being prepared simultaneously with this one. Instead we will concentrate on more general conditions which are important whatever the prevailing curriculum philosophy and practice. We will concentrate on the traditional pre-school years of three to five, with occasional comments on children younger and older.

Discussion is divided into three main sections: knowledge about language development; knowledge about language differences; and suggestions for operating Day Care centers for maximum language development.

LANGUAGE DEVELOPMENT

By and large, children do not learn language from their teachers. Most children come to school, even to preschool, with basic knowledge of the grammar of their native language.

When we say that a child learns his native language, we mean he is learning a limited set of rules which linguists call a grammar. On the basis of this knowledge of rules, the child can speak and understand an infinite set of sentences. He doesn't know the rules in any conscious way. The rules are known non-consciously, and are out of awareness. That is true for adults too. Few readers will be able to state the rules for adding /s/ or /z/ or /iz/ sounds to form plural nouns. Yet if asked to supply the plurals for nonsense syllables such as bik or wug or gutch, all readers who are native speakers of English can do so with ease. If the reader will say these words to himself, he'll quickly see how easy it is to decide which plural sound to add. Most six year old children can add these plural sounds correctly too. We infer knowledge of the rules from what adults or children can say and understand.

Children learn the grammar of their native language gradually. One might assume, therefore, that the stages they pass through on their way to adult knowledge are partial versions of it. However, this is not the case. One of the most dramatic findings of studies of child language

acquisition is that these stages show striking similarities across children but equally striking deviations from the adult grammar.

For example, while children are learning to form noun and verb endings, at a certain period in their development they will say foots instead of feet, goed instead of went. Children do not hear foots or goed. These words are overgeneralizations of rules which each child is somehow extracting from the language he does hear.

Sometimes we hear dramatic evidence of how resistant to external correction the child's rule system can be. Jean Berko Gleason (1967) had the following conversation with a four year old:

- C. My teacher holded the baby rabbits and we patted them.
 JBG. Did you say your teacher held the baby rabbits?
 C. Yes
 JBG. What did you say she did?
 C. She holded the baby rabbits and we patted them.
 JBG. Did you say she held them tightly?
 C. No, she holded them loosely.

With rare exceptions, all children learn to speak the language of their parents and home community. They do so with speed and ease, at pre-school ages when other seemingly simpler learnings such as color identification are absent. So one naturally wonders how they do it, and how the environment helps. Here we can contrast research knowledge with common folk beliefs.

Folk Beliefs

Myth: Children learn language by imitation. The common-sense view of how children learn to speak is that they imitate the language they hear around them. In a general way, this must be true. A child in an English-speaking home grows up to speak English, not French or some language of his own. But in fine details of the language learning process, imitation cannot be the whole answer. As foots and goed and holded show, children use the language they hear as examples of language to learn from, not samples of language to learn.

While imitation is not as important as commonly believed, identification with particular models is very important. How any person speaks depends not only on who he is, but on how he sees himself in relation to others, on who he wants to be. From the beginning of the language learning process, children pick their models. This is not done consciously, but we have already noted how powerful non-conscious knowledge can be. If children didn't pick their models, there would be no way to explain why Black children, for example, speak like their parents or peers despite considerable exposure to standard English on television. The power of attitudes to influence language learning is of critical importance for education. They influence teachers' responses to children as well as children's responses to teachers. We will return to this point in a later section.

Myth: Children learn language by being corrected. Just as the commonsense view holds that the child's language learning process is basically imitation, so it holds that the adult's contribution is to shape

the child's speech by correcting him when he is "wrong" and reinforcing him when he is "correct." Here too the folk belief is wrong. All analyses of conversations between parents and children whose language is developing well show that neither correction of immature forms nor reinforcement of mature forms occurs with sufficient frequency to be a potent force. Studies have shown that this is true for white children in Cambridge, Massachusetts (by Roger Brown and colleagues), and Madison, Wisconsin (by Bernard Z. Friedlander); for Black lower class children in Rochester, New York (by Vivian Horner), and Oakland, California (by Claudia M. Kernan).

During conversations with their children, parents do correct mis-statements of fact (like when a particular television program comes on); they clarify word meanings (like the difference between beside and under); and they correct socially inappropriate language. Ursula Bellugi-Klima's picture of one family's conversations applies to all:

The mother and child are concerned with daily activities, not grammatical instruction. Adam breaks something, looks for a nail to repair it with, finally throws pencils and nails around the room. He pulls his favorite animals in a toy wagon; fiddles with the television set, and tries to put together a puzzle. His mother is concerned primarily with modifying his behavior. She gives him information about the world around him and corrects facts. Neither of the two seems overtly concerned with the problems that we shall pursue so avidly: the acquisition of syntax (1968).

The language that mothers speak to young children has been studied by students of Dan Slobin in California (Black mothers in Oakland) and by Judith Phillips in Baltimore (hospital staff workers). Mothers do use simpler language with young children than with other adults, and as the child's utterances become longer and more complex, so do the mothers's. Other than this simplification, there is no sequencing of what the child has to learn. He is offered a cafeteria, not a carefully prescribed diet. And seemingly impelled from within, he participates in the give-and-take of conversation with adults and other children as best he can from the very beginning, and in the process takes what he needs to construct his own language system.

Individual Differences

While the course of language development is similar for all children, individual differences in the rate of development will be striking in any Day Care center. These differences appear in both speaking and understanding, and they pose special problems for teachers.

For example, at age two-and-a-half, many children are talking a great deal while others do not utter a word. The child who talks well at age two is not necessarily brighter, nor will he necessarily be more verbally capable at age three. A little later in life, roughly from three-and-a-half on, there is a relationship between how verbal a child is and how verbal he will be in the future. But in the earliest months of talking,

this is not the case.

Individual differences in amount of talking in very young children pose a specified problem for teachers because adults tend to talk more to children who talk back. (Adults like reinforcement too.) And so unwittingly a Day Care center may magnify natural differences. Talkers who are reinforced for talking by someone they like and trust will talk even more; non-talkers may be even less inclined to talk if they are ignored. Teachers must be exceedingly careful how they distribute their attention during the day.

Variability among children in understanding language is probably as great as variability in talking. Consider, for example, Palmer's (1970) research on New York City children's comprehension of words for basic concepts like on top of, fast, wet, same as, or many. Children were asked to demonstrate their understanding by manipulating objects. For instance, using a tow truck and a car, children were asked to "make the car go up" and "make the car go down." Of 50 such concepts, some children at age two understood only six or seven while other children understood as many as 40.

Some concepts, and the words associated with them, are easier than others and learned earlier by most children. For example, of 240 children from three ethnic groups in Palmer's study, the following percentages of all children responded correctly to particular words:

On top of (93%)	Slow (29%)
Into (82%)	Biggest (26%)
Open (74%)	Under (18%)
Wet (68%)	Around (10%)

The comprehension vocabulary of a child is seldom as well recognized by those about him as his productive vocabulary. Yet good teaching presumably requires that the teacher talk with each child in words he can understand while helping him always to learn more. Teachers need to listen sensitively to children in a variety of situations. (See Cazden, in press, for specific suggestions.)

A child's background may influence his knowledge about such concepts, even as early as age two. For reasons we don't understand, the Puerto Rican children in Palmer's study were considerably better in responding to concepts of movement such as fast and slow, even though the three groups were matched for socioeconomic status. Thus while some concepts are generally more difficult for children, the immediate home environment contributes to what specific concepts children understand. The specific population that a Day Care program serves will influence what knowledge children bring to the program.

In a center where age groups are mixed, the extent of individual differences will of course be greater. By age three, most children have learned to comprehend many of the simpler concepts. For example, Palmer found that, in the same sample of 240 children at age three, 70% of the children comprehended the concept under, whereas only 18% had done so at age two. Concepts which are still very difficult for the three year old were bottom, backward, and side. Still other concepts, such as same

and different, remain difficult for children even when they are four.

Words representing concepts like into are learned first in specific situations. Even when a child shows that he understands the message Put the toy into the box, we cannot assume that he has a general understanding of the spatial relationship into. He may simply know what one normally does with toys and boxes. One characteristic of language learning is growth from meanings which are situation-bound to meanings which are situation-free, and children will vary in how situation-bound their meanings of particular words are. Even with words that children may "know" in a limited sense, teachers should try to use those words in a rich variety of contexts.

Finally a word about differences that correlate with social class. Language development in the growing child is partly a function of the education and occupation of his parents. This is particularly true for knowledge of word meanings, which is what most language tests (and also some intelligence tests) evaluate. This fact has led some teachers and researchers to infer that differences in all forms of language development begin very early in life, shortly after the child begins to talk. This is not the case.

The language comprehension of Negro boys of widely varying social classes was compared at age 2/0, 2/8, 3/0 and 3/8. Care was taken to make sure that each child was comfortable in the testing situation so that four to 15 hours were required to finish the test battery, depending on the child's age and individual characteristics. No significant social class differences were shown. Comprehension does vary according to social class at about age four-and-a-half. These social class differences emerge first at the extreme of parents with exceptional educations, and a select group at the highest end of the socioeconomic scale may perform better as early as three. But no differences between the child of average parents and the child of ghetto parents emerges until four-and-a-half (Palmer, 1970).

This fact has significant implications for preschool education, since from two to four-and-a-half are years in which children frequently are first placed in Day Care centers and nursery schools. We can reduce the differences which would otherwise emerge.

LANGUAGE DIFFERENCES

Most children differ from their teachers in the language system (the grammar) that they use. They also differ among themselves in verbal styles. It is not possible to plan effective educational programs without taking these differences into account.

Differences in Grammatical Systems

One important source of language differences is, of course, the foreign language background of many children. Some children of immigrant families come to school without knowing English; however, in most cases they are already using English before the age of five. In the United States, the normal pattern has been for parents to promote the use of English by their children; knowledge of the foreign language is only

passive for these children, even in the first native generation. The Italian or Yiddish backgrounds of many first generation children have surprisingly little influence upon their English.

This pattern of the decline of the immigrant language is evident among Puerto Ricans, although the continuous exchange with Puerto Rican obscures it, and makes Spanish seem a more stable language than the predecessors in the Eastern cities. In any case, there is no strong influence of Spanish grammar on the English of first-generation Puerto Rican adolescents. Younger children, still under the influence of their parents at four or five, may show a much heavier Spanish overlay in their English.

In those regions of the United States directly bordering on a foreign language area the situation is different. There are two such regions: Maine, next to French-speaking Quebec, and the southwest, next to Spanish-speaking Mexico. Spanish continues as the native language of children in the southwest, and shows no signs of disappearing. In the same area, there are large numbers of Indian children -- Navaho, Apache, Hopi and others -- for whom English is a second language.

Many more children will have different grammatical systems from their teachers because they speak some non-standard dialect of English. For these children, English is their first language; but the dialect is different from that of the teacher. There is a general consensus among educational speakers on the grammar of standard English. Disputes are confined to a series of familiar controversies, like *It's I* vs. *It's me*, and a number of fine points which rarely occur in natural speech. But most children differ from their teachers in their use of a number of frequent non-standard forms, which make up a general, subordinate social dialect. Though many teachers may once have used such forms in their own native vernacular, they have learned to avoid them in the course of being educated. For most regions of the United States, the number of different items involved is surprisingly small: a dozen or so rules, concentrated in the marking of the objective case in pronouns, agreement between third singular subject and verb, irregular forms of the perfect, the comparative and adverbial - *ly*, a few conjunctions, and such well-known markers as *ain't*. The persistence of these forms is a tribute to the strength and vitality of the non-standard dialects, rather than any inherent difficulty in converting to the standard rules. More details follow for regional dialects, Creoles, and Black English.

Regional dialects. Some regional dialects differ much more from the standard English of the classroom (SE) than the usual urban non-standard speech. Rural New England, Appalachia, and many regions of the south show non-standard grammars with striking points of contrast with SE. Southern dialects freely employ negative inversion for emphasis: *Didn't nobody see it* may be a statement in the south, but can only be a question in the north. There are also deeper social differences in the south than elsewhere: *Ain't nobody see it* is the most non-standard equivalent of the form just given. Most teachers in these areas come from the same region, and have an intuitive grasp of these grammatical forms, though not necessarily a full enough understanding to teach the contrasting sets of rules to children.

When a regional dialect is transplanted to another region -- usually a rural dialect to an urban region -- it typically becomes a subordinate, stigmatized social dialect. This is the case with the speech of Blacks from the rural south who move to the northern cities. The linguistic distance between them and their teachers is greatly increased by this move, so that there is a regional and a social barrier. The same is true of Appalachian speakers who move to midwestern cities such as Columbus or Cleveland.

Creole languages. There are two types of English spoken within the borders of the United States which are more different from SE than any of the dialects mentioned, but not as different as the foreign languages French or Spanish. These are Creoles -- distinct languages with a largely English vocabulary, not readily intelligible to speakers of SE. Creoles are native languages descended from contact vernaculars or pidgins, reduced forms of language developed when speakers of radically different languages encountered the need for daily communication. One such English Creole is Gullah, spoken in coastal South Carolina and Georgia by Blacks, especially on the Sea Islands; Gullah directly or indirectly influences all of the English spoken in that region. The other is Hawaiian Creole (generally known as "Pidgin" in Hawaii), which is the native language of most of the non-Caucasian population on the islands. Adults and older youth use a modified form of these Creoles in conversation with outsiders, so that many outsiders believe that the Creoles no longer exist as distinct languages. But children coming to school maintain the Creole tradition, and most of them preserve it as their basic vernacular until their early twenties at least. The term "Creole" originally referred to the type of French based vernacular spoken in Louisiana, which still has an influence on the speech of children in some areas.

Black English. Black English, or "non-standard Negro English", is a remarkably uniform dialect used by Black children in all of the inner city ghetto areas and throughout most of the south. Current studies by William Labov, Roger Shuy, William Stewart, Walter Wolfram, and others have found that the grammar of Black English (BE) is essentially the same in Boston, New York, Philadelphia, Washington, Cleveland, Detroit, Chicago, St. Louis, New Orleans, San Francisco and Los Angeles. There is evidence that BE has a Creole background -- that it has inherited certain grammatical features from an earlier Creole spoken throughout the south, similar to those spoken in the Caribbean, and is itself the product of a language contact situation between European and African languages. BE is therefore the combination of all the differentiating factors mentioned above: it inherits a non-standard regional dialect, transported to other regions in a subordinate position; a Creolized pattern which is the result of contact with other languages; and shares general non-standard features of English such as negative concord ("double negatives") and irregular perfects such as I had

The over-all results of Labov's research on BE show that the striking differences from SE heard in the stream of speech are superficial in a linguistic and logical sense. Though BE differs from SE more than any other non-standard dialect, it is not a foreign language in any sense of the word. The underlying set of meaningful categories are the same, with one or two notable exceptions. The striking differences in surface structures are

largely due to (1) the rules for contraction of grammatical particles, (2) phonetic realization of a few sounds, (3) different intonational patterns, and (4) different distribution of a few redundant elements.

The situation with the regular past tense illustrates the general point. Black children often say He pick me up yesterday where the word pick seems to have no ending. But careful examination of a number of dialects shows that the rule which produces pick is used by all speakers of English to a greater or lesser extent: it is an optional deletion of a phonetic -t or -d after another consonant. BE carries the -t, -d deletion rule further than other dialects, and includes the past tense -ed in its scope much more often. But there are no BE speakers who never use -ed. The plural -s occurs in BE, though there are some few differences in irregular forms such as deers in place of deer. In contrast, the Creoles based on English have a very different grammatical apparatus. Jamaican Creole has no -ed and no plural -s. The past tense is usually not marked at all, and the habitual present is marked with a prefix -a before the verb. The plural is marked by the suffix dem: di buk dem corresponds to SE and BE the books. Hawaiian Creole has no -ed either, but uses the auxiliary went instead: He went pick em up for SE He picked it up.

Forms of the verb to be like is and are and were - together called the "copula" - become even more central in the discussion of the logic of the child as evidenced by his language (Labov, 1970). Some psychologists working with pre-school children have thought that they lacked the ability to make logical statements because the copula was not present. They mine or He my brother were taken as illogical expressions. The present tense copula is of course not logically necessary; most languages dispense with it in such sentences. However in this case, BE is merely extending the contraction rule to drop these forms when they are not emphasized, under the same conditions as govern the SE contractions They're mine and He's my brother. (BE has in addition an undeletable copula be which marks the habitual present.) In any case, we find that all BE speakers have an abstract copula which appears with emphasis or whenever contraction is permitted, as in He is my brother and That's what he is. Children from two to eight years old use the full form of is even more than older children who have mastered the BE vernacular.

Developmental vs. Dialect Differences

The view of language differences just presented will be complicated in the Day Care program because many four year olds have an incomplete grasp of the grammar and phonetics of their basic dialect, standard or non-standard. At this age, they often have problems with the articulation of l and r, so that contracted forms of will and are in He'll and They're are particularly elusive. They have difficulty with the sound of th, as in them or thin, and produce instead (t) and (d) or (f) and (v). They have problems with such consonant clusters as -st and str- in passed, test and strong, as well as thr- in throw. Labov has found that Black or Puerto Rican children share these developmental patterns, and in some cases they coincide with and reinforce the pattern of their non-standard dialect. We may hear skr- for str- in street from many children; for Black children, this happens to coincide with a regional South Carolina pattern which is often found in the north.

Grammatical patterns also show a certain degree of similarity between non-standard and early childhood forms. The forms of questions used by very young children often fail to show a reversal of subject and auxiliary with WH-questions: Can he go? but Where he went? BE speakers seem to favor this pattern longer than speakers of other dialects, though the standard Where('d) he go? is more common in the fully formed BE. Hawaiian Creole has no such reversal even in yes-no questions: we have only He can go? with a special high falling intonation signalling the question form.

At the age of four, many children show negative concord in their speech: they don't like nobody, which coincides with the general non-standard form. The distinction between subjective and objective forms of pronouns, especially he and him, she and her, is occasionally missing in the speech of young BE speakers, who acquire it later in their adolescent years. It is possible that such irregular patterns survive longer among Black children as an inheritance of Creole patterns which do not distinguish subjective or objective, masculine, feminine or neuter. It does not mean that the young child is confused on the notions of male and female.

The fact that many non-standard forms coincide with the early developmental patterns of children learning standard English has led many people to assume that non-standard speakers are simply retarded in their verbal development. Their low verbal output in the traditional school environment and limited school performance reinforces this view. But there is an equally large body of facts that show non-standard dialect as further developments - going beyond the standard - and more remote from childhood patterns than SE. Negative inversion or the deletion of the copula are actually additional steps in the development of the language. It is therefore incorrect to identify non-standard language with underdeveloped language, and the teacher or tutor in a Day Care program must realize that the differences between his speech and the children's speech represent a mixture of developmental and dialectal differences.

Folk beliefs

Any program for teaching Day Care center personnel about language differences will have to come to grips with a set of powerful folk beliefs. (See Baratz and Baratz, 1970, for more extended discussion).

Myth: Some languages are better than others. Although some people falsely believe, for example, that some Indian languages are little more than a series of grunts and groans, or that standard English is better than Black dialect for abstract thinking, there is no evidence to support such assertions. All languages are inherently equal in the complexity of their basic grammatical and logical structure. All languages have highly structured rules of sound and syntax, and all languages are used for inter-personal and intra-personal communication. Different cultures vary concerning what are appropriate topics to talk about -- for example, people in non-technological societies spend less time discussing scientific matters than those in technological societies. But any language has the potential to deal with any topic, if the speakers want to introduce or develop the appropriate vocabulary.

Myth: Some dialects represent bad language usage. As linguists use

the term, "dialect" refers simply to the many varieties of a language that, when taken together, make up a language. For example, English has many dialects in the United States and the United Kingdom. Standard English as we know it in the United States merely represents one dialect among many. The fact that it is the official form of the language for conducting the affairs of state, business and education, does not mean that (in terms of its linguistic properties) it is any better than white Appalachian dialect, Black non-standard dialect, or Hawaiian Pidgin English. All dialects of a language (including the standard) are systematic, highly structured language codes.

Myth: People who speak a non-standard dialect are stupid. Following from the myth that dialects are bad is the false conclusion that people who speak non-standard dialects are necessarily stupid. Such an assumption erroneously assumes that any utterance that is not in standard English is the result of poor learning of standard English rather than the result of good learning of a dialect other than the standard. The language variety one learns reflects where and with whom one lives, not the intelligence with which one is endowed.

In many instances people who make statements concerning the worthlessness of non-standard dialects have failed to separate the linguistic reality from the social one. The fact that standard English dialect is important for negotiations in the larger mainstream society, and the fact that the larger mainstream society devalues and distorts the validity of non-standard dialect does not make the latter any less structured or rule governed in terms of its linguistic features. Such social devaluing indicates how the language myths maintained by the ignorance and ethnocentrism of the mainstream society have inadvertently generated prejudice.

Myth: Learning a non-standard dialect is not learning a language. This leads to the commonly held assumption that children from economically deprived backgrounds are verbally destitute. Educators and psychologists in their ignorance concerning language learning and language usage have contributed greatly to creating and maintaining the "verbal underdevelopment" myth. Such a myth arose because these educators erroneously equated being verbal with being proficient in standard English -- thus confusing non-standard utterances with "underdeveloped" language.

In addition, in many experiments designed by these educators to elicit language, they not only used stimuli which were linguistically biased in favor of standard English, but also violated social conventions of the very children that they tested. Language learning involves not only acquiring the rules of the structure of the dialect but also the social conventions of its usage, i.e., what topics are talked about, with whom one talks, etc. In certain cultures, it is inappropriate behavior for a child to make a "display" of his knowledge to an adult even if the elder happens to be kind - the proverbial friendly white examiner. The Black child's I 'on' know may more often reflect his perception of the alien social situation than his ignorance.

The prevalence of these myths among teachers may be related to their own social background. According to one estimation, 80% of teachers come from the middle class, and a good proportion of this percentage comes

from the lower middle class. This is the group which Labov has found frequently the most linguistically insecure. No comparable estimate is available for Day Care personnel, but the presence of large numbers of paraprofessionals may make the problem of adult insecurity about language even greater. People who are themselves insecure may become rigid and hostile when children display speech patterns which they hate in themselves.

Unfortunately, these folk beliefs about language differences are more damaging to a good Day Care program than folk beliefs about how language develops. We now realize that the expectations which a teacher has for his children will influence how he teaches and how much his children learn. There is mounting evidence that one of the most important cues a teacher responds to in developing these expectations is his children's speech. Frederick Williams (in Chicago) and Wayne Shamo (in Memphis) found that teachers evaluate children more negatively when their speech has non-standard pronunciation and syntax. Judith Guskin in Ann Arbor found that teachers-in-training rated Black speakers as less likely to succeed academically than white speakers. Seligman, Tucker and Lambert in Montreal found that a recorded speech pattern or a child's photograph carried more weight than the quality of a child's composition or drawing in 3rd grade teachers' ratings. There is no reason to believe that preschool teachers, in-service or pre-service, would be less susceptible to these prejudiced reactions. Monica and Douglas Holmes compared the evaluations of a Head Start teacher in Coney Island with observations and IQ tests of the children in her class. The teacher's ratings of her children's intelligence were not correlated with actual intelligence test scores, and they were biased by such actual behaviors as the child's willingness to respond to directions and his general verbal skills.

We do not know how a training program for teachers should be designed to deal with such ethnocentric biases. Since these reactions are deeply founded in the teachers' own past experiences, they probably will not be changed merely by learning the facts of language differences.

Differences in Verbal Styles

Children differ markedly in their strategies for learning. (1) Some make every bit of new knowledge explicit, and insist on repeating aloud everything they know. (2) Others store up knowledge like blotchers, rarely producing it even on demand. (3) Others avoid new learning, and insulate themselves from it as much as possible. The difference between these strategies or individual styles is crucial in planning a successful program.

It has been considered the task of teachers to diagnose such individual differences in behavior. No test now in use seems to differentiate children who are following path (2) from those who follow (3). But certain general sociolinguistic principles operate beyond the influence of individual personalities. There are striking differences in the way that children talk to each other and the way they talk in the presence of adults. Oldest children or only children show fastest verbal development, and more of it, in the sense of strategy (1) above. Practice in communication with adults leads to more explicit verbalization, better performance on reading readiness tests, better initial performance in school. The conclusion of most teachers is that the more silent children lack the necessary

requirement for verbal development -- contact with adult speakers of SE -- and need more individual attention from the teacher, even one-to-one tutoring.

Some children do indeed talk more fluently to adults. But empirical studies show that many children talk less with adults than with their peers. Their responses to adults may also be less complex than the kind of speech they produce among themselves. Children who are tagged as "non-verbal" in test situations with an adult often show remarkable verbal skills when adults are absent. This is particularly true among Black and Puerto Rican children who have a highly developed verbal culture of their own which is not easily accepted or appreciated by parents and teachers. Teachers will need to be imaginative in trying a variety of methods for adapting to individual differences in verbal style.

Teachers often want to obtain samples of children's language, either for evaluation or for instruction -- as in creating experience charts for beginning reading. To obtain such language, teachers often use the same technique as testers: ask the child to tell a story about a picture. The following examples are taken from such a teacher-tester situation, where the most elaborate language elicited consists of such simple, unconnected sentences as: The girl got a bike . . . The boy's playin' football. In the typical exchange, the adult does most of the talking:

Teacher: Where are they playing, James?
 James: On the street.
 Teacher: Do you think the street's a good place to play in?
 James: Yes.
 Teacher: You do? Alright, go ahead. Tell me some more.
 Why do you think it is a good place to play in?
 James: 'Cause they like to play.

The main sociolinguistic control upon speech is the unequal power relation between adult and child. No matter what demands are made upon the child, no matter how obscure and pointless the questions may seem, he is obliged to answer. The typical reaction of many pre-school children is to give minimal responses, sometimes the exact reverse of the answer the adult is demanding. This happens most often when the adult combines moral instruction with his inquiry, and thus confuses the roles of preacher and teacher.

Teacher: Mays, do you see all that paper in the street?
 Mays: Yeah.
 Teacher: How do you think it got there?
 Mays: It blew there.
 Teacher: Do you think that children could do anything to help keep the street clean?
 Mays: Nah.

The tendency to act as an agent of social improvement is a difficult one to resist even in the midst of an exploration of the child's verbal skills. Day Care programs are particularly apt to develop this line of adult-child relationship, since many adults think their primary responsibility lies in keeping the child out of trouble and improving his social behavior.

In any case, the adult should recognize that he will provoke in many children the defensive behavior illustrated above. Many educational programs are based upon such false evidence of the child's restricted verbal capacity, and are devoted to the task of providing him with a "new language." Teachers and supervisors should recognize this monosyllabic behavior as evidence of the restricted school environment which produces it. The first step in extending each child's verbal abilities is to create a school setting which stimulates each child to use all the language he has.

LANGUAGE IN THE DAY CARE CENTER

In the Day Care center, children can talk to other children and to adults. It is important to make maximum use of all these human resources. Following are two sections on talk among children and adult-child talk. We end with two shorter postscripts on selecting a language as the medium of communication in the Day Care center, and a suggestion for cultural pluralism in the curriculum.

Talk Among Children

We have said above that children in most Day Care center populations will use their fullest grammatical skills when talking to other children. This means, as a minimum, that centers should encourage as much talk among children in school as would normally occur outside. Ideally, more can be done to maximize the benefits of child talk for each participant. Three functions of speech seem particularly important as incentives for complex language.

Speech for self-aggrandizement. The primary factor here is power relations. The most language is produced when there is no one present of superior status: in other words, when nothing the child says can be held against him. It is even helpful to have someone of clearly inferior status present, an argument for mixed-age grouping. One of the major uses of language is self-aggrandizement with respect to others: raising one's own status and lowering theirs. Children use the system of adult norms as an instrument for this purpose, and become involved in complex propositions on the future consequences of present or future acts. To illustrate this point, we can use extracts from the free conversation of the same six year old quoted above. Those present are James, his close friend Mays, a smaller and younger boy named Harold, and a rabbit.

- Mays: James, I told you not to move with him no more! If he fall out your lap and hurt hisself, that's your fault an' you gonna pay for it! . . .
- James: You better sit back down, boy, before he get ma-ad, and beat you up for some carrots.

Language for explication. A second major incentive for complex language is the need for explication: as in puzzling out the complex workings of machinery:

- Mays: Look at it, look at -- that's why it's turnin' around. You know why it's turnin' around? 'Cause makin' that thing . . .

The first two functions are combined in:

Mays: How can a bunny rabbit talk to you! He only don't even know how to speak!

Language for aesthetic pleasure. The third motivating factor for complex speech is aesthetic. Children play with syntax as well as sound, and can demonstrate skills which go far beyond any current program of instruction. The following example combines the aesthetic and the normative functions of language:

James: The more he get nervous --

Mays: -- the more he gonna jump off!

James: Uh-uh. The more he get nervous, the more he die, the more Harold gonna hafta pay the doctor bills!

Mays: Right. 'N' the more he get nervous . . .

James: Tsk! The more he die, the more Harold gonna hafta pay the doctor bills.

The linguistic skills of these children are beyond the school program which is being offered them. The task of the Day Care program, if it is to be successful, is to draw upon the energy and versatility displayed here for constructive ends. This can be done by constructing social situations in which these abilities naturally come into play. Children should be helped to organize themselves into groups with considerable age range, where it is the natural task of the older to explain things to the younger (and where the younger is not necessarily degraded for not knowing something). Also they should have available objects of considerable mechanical complexity, where their desire for explication can be given full scope.

Many Day Care programs use puppet plays and other role playing situations to stimulate language. This can be a successful device if three basic relationships are incorporated. Adults should provide roles and situations, but not model behavior or the plot. Characters can be constructed who are in an inferior role in relation to the children - puppets, animals or robots who know less than the children themselves. Objects and settings for such roles can be complicated up to the point where it is possible for any small child to get lost in them.

These suggestions for maximizing the value of talk among children come from sociolinguistic analyses of children's spontaneous speech. They are important because so often in discussions of programs for young children the impression is given that planning for one-to-one talk between adult and child is all that matters. Hopefully, we can learn more about how to create conditions for complex talk among children by analysing what happens when these ideas are tried out. Whatever situations are most likely to elicit a child's most complex language are also useful contexts for diagnosing his growth in verbal abilities over time.

Adult-Child Talk

Adults can talk to children in ways which are uniquely beneficial to their language and cognitive development, and Day Care centers should

be operated to maximize the effectiveness of adult resources. But what counts is the quality of adult-child talk, not just the quantity, and the organizational conditions in which high quality talk is most likely to occur.

Quality of talk. The first major step is to shift the role and behavior of the adult away from that of interviewer to that of a resource for the child to draw upon. Unfortunately, many language curricula depend largely on question-answer sequences. Questions put by the adult should be true requests for information, rather than know-answer questions of requests for display. To the extent that an adult takes on the role of disciplinarian, he can hardly serve as the center of a free exchange of ideas.

Barbara and Jack Tizard (1970) have studied the conditions in residential nurseries in Great Britain which promote language development. They found that " 'informative' remarks by the staff tended to evoke a response in the children, while commands and 'time passing' remarks did not. The more frequent the prohibition in an adult's talk, the less often was she answered by the children."

Surprising as it may seem, many adults need help in learning how to talk to children in productive ways. Polly Greenberg reports on a workshop session from the Child Development Group of Mississippi:

Talking about talking with children didn't work. If people don't habitually talk lengthily with children, they don't know how to talk lengthily with children. So we actually practised it:

Tape plays:

Teacher: Oh, you tease Tom, what are you telling Winston?

Tom: I tellin' him my brother Gary a bad bad boy.

Teacher: Oh, now that ain't nice.

The group analyses and discusses this. Then the same teacher goes to find Tom, who is waiting for our staff meeting to be over so one of the teachers will drive him home. The same teacher runs through the same conversation. I tape this conversation too, and afterward we discuss it to see if and how the teacher prolonged and enriched the verbal exchange.

Teacher: Tom, what was you tellin' Winston this mornin' when you was playin' with the ball?

Tom: I tole him Gary my brother.

Teacher: You like Gary?

Tom: Yeah, I lahk him, but he bad.

! . . (3 Teacher-Tom interchanges)

Teacher: Why's dat?

Tom: 'Cause he walked up and set with his friend when they was singin' 'bout Jesus and the preacher was preachin'.

Teacher: Who whipped him?

Tom: Daddy - he tuk him outside and whupped him with a red belt.

Teacher: Did Gary cry?

Tom: Oh, yeah, he got tears in his eyes. Mama wiped his eyes with a rag when he come back in. Then he popped his fingers. That boy can't never be quiet.

. . . (and so on for at least five more Teacher-Tom interchanges) (1969, pp. 165-66.)

In the above conversation, adult and child are talking about a past event. Sometimes it may be easier to engage a child in extended conversation about some object actually present. David Hawkins (a philosopher of science) relates how he learned from his wife Frances (a nursery school teacher) how to talk with small children:

I learned. . . that one of the very important factors in this kind of situation is that there be some third thing which is of interest to the child and to the adult, in which they can join in outward projection. Only this creates a possible stable bond of communication, of shared concern. . . So the first act in teaching, it seems to me, the first goal necessary to all others, is to encourage this kind of engrossment. Then the child comes alive for the teacher as well as the teacher for the child. They have a common engrossment for discussion, they are involved together in the world (1967, p. 7).

In these conversations, teachers should try (even at the risk of initial self-consciousness) to use elaborated and precise language themselves (within the limits of the child's comprehension). There is evidence that the elaboration of teacher talk is reflected in the talk of their children (Smothergill, 1969), and that it is the quality of talk, not the quantity, that counts (Tizard, 1970). Oralie McAfee (1967) gives suggestions for vocabulary, and Celia Lavatelli (1970) gives suggestions for syntax.

Finally, the reinforcing nature of the affective relationship between child and adult can be used deliberately to facilitate learning in the child. When a warm and trusting relationship between the two has developed, games and other forms of play may serve as a context for learning. But for maximum effect, the child must learn that from the games the teacher will expect some response. Just as there is a difference for an adult between reading a detective story for his own satisfaction and reading a drivers' license manual to pass an examination, so there is a difference between play for play's sake and play designed to provoke responses from the child in a context of learning. If the child learns that the blocks or toys with which he is playing are related to a response the teacher will expect of him, he seems to learn to process the experiences he has in a more systematic manner. This ability to organize information with the purpose of an eventual response to an adult or peer is probably most efficiently learned in the one-to-one situation between adult and child where the adult can, with smiles, nods, and words of encouragement, reinforce the child's responses which order the materials he is playing with. Organizing information for response to others is an essential characteristic of most human intellectual abilities, no matter how one wishes to define intelligence.

Organizational conditions. The Tizards' research points to organizational conditions in Day Care centers which probably will affect how often

high quality conversations take place between adults and children. The adult-child ratio is not the only factor, though that is important. They found that nurseries in which the children's language development was highest were also characterized by a smaller proportion of children under three, greater staff stability, and greater staff autonomy. Where the proportion of very young children was high, the staff was preoccupied with the burdens of physical care. Where staff turnover was high, the adults were less apt to understand the early speech of the young child. Where staff autonomy was low, the adult saw her job more as "minding" the children under the eye of her supervisor." Finally, within any given adult-child ratio, conversation may depend on how staff responsibilities are allocated. The Tizard's found that "when two staff were on duty with a group of six children, the junior of the two tended to talk less and interact less with the children than when she was alone in charge of the group." Adults as well as children are influenced by the power relations inherent in speech situations. We need more studies like the Tizard's of how features of complex organizations influence behavior and thereby affect the child's development.

Which Language to Use

Day Care programs must take into account that most of the children have limited command of standard English. The basic approach used in the past has been the "sink or swim" method, where foreign language speakers or BE speakers were confronted with an SE speaking classroom. Children have a surprising ability to cope with such an abrupt switch. Experiments in Quebec show that English speaking middle class children can accept a totally French speaking school without any obvious problems. But this is under the most favorable circumstances. The obvious fact remains that BE, Creole, French, Spanish or Indian speaking children do not take full advantage of the English speaking schools, and their over-all educational achievement is very low. From all indications, the low performance of Black, Chicano, or Indian children is the result of general cultural factors. But while the absence of their native language from the classroom may not present insuperable cognitive obstacles, it may be decisive in defining the school or preschool as an alien and hostile environment.

It follows that ideally both the children's native language or dialect and standard English should be used in the classroom. How much English and how much of the other language is an open question. A further and more difficult question concerns the selection of Day Care personnel -- whether staff for a center or mothers for home Day Care. Which is more important: fluency in the child's native language or some degree of fluency in standard English? As certification requirements for educational personnel change from academic degrees to performance criteria, the question of criteria in language becomes important.

Obviously the best qualified adult would be fluent in all languages and dialects represented, but the supply of such multilingual experts is extremely limited. Answers to these questions will depend on the attitudes and goals of the parents, on the availability of bilingual personnel, and on more knowledge than we now have of how best to teach children a second dialect or language in a school setting while promoting

their fluency in their first language as well. (See John and Horner (in press) for discussions of bilingual programs for young children.)

Teaching Cultural Pluralism

We assume a goal of cultural pluralism - many different ethnic groups living together, sharing and borrowing while retaining their ethnic distinctiveness. The early childhood Day Care center offers a unique opportunity for children to learn about their own cultural identity while learning at the same time to respect others. A curriculum for young children can be designed so that they can learn not only about the language, culture, and mores of their own group or of mainstream America but also of the many distinct ethnic groups that are a part of the American society. More materials are becoming available that can be used for the intercultural education of young children.

Food is a topic dear to all children, and exploration of the food tastes of varied ethnic groups could provide an excellent beginning for learning about cultural differences. It should not be difficult, especially in urban areas, for teachers to obtain samples of the foods of Jews, Italians, Blacks, Poles, Chinese, Mexican-Americans, etc. from neighborhood stores. Information on songs, dances, games and the social customs of children from different cultures are available from such sources as Folkways Records, the United Nations Educational Scientific and Cultural Organization and many ethnic organizations such as B'nai Brith, the Knights of Columbus and the National Association for the Advancement of Colored People.

In using all these materials it is important that they be related to what the children already know. It will not help for a white child in Los Angeles to learn wonderful things about Pedro in Seville while he remains contemptuous of Jose in the inner city of Los Angeles, nor to admire Aki the Nigerian boy while he considers Leroy ignorant because he says "ain't." By the same token, it seems at best devious, and perhaps futile as well, to teach a lower class American Black child to respect himself by learning to respect tribal Africans on the one hand, or middle class American Negroes on the other. The kind of identity which the lower class American Negro child must learn to respect is his own -- including his own variety of walking style, dress and language.

Undoubtedly, the most important resource is the variety of backgrounds within the Day Care center itself. Language differences among children and staff -- and cultural differences of all kinds -- should be welcomed, openly discussed and used in the curriculum. Hopefully, adults as well as children will gain greater self-confidence in themselves and more realistic attitudes towards others.

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CHAPTER 7

STIMULATION, LEARNING, AND MOTIVATION PRINCIPLES FOR DAY-CARE SETTINGS

Jacob L. Gewirtz*

INTRODUCTION

In one form or another, Day Care has long been a feature of man's environment. Recently, the demand has increased such that it may well exceed existing caregiving facilities. Further, newly devised programs for large numbers of children may not consider sufficiently either the needs of children or the potential advantages inherent in the Day Care concept. In the design of a caregiving operation, one of (at least) three strategies could be emphasized: (a) to mimic some variant of the typical nuclear family; (b) to simply provide a babysitting service; or (c) to stimulate and enhance development of the child's behavior systems in socially desirable ways. The first strategy is impractical; the second an unsatisfactory minimum. The questions thus becomes: "How do we accomplish the third?" The purpose of this and the following chapter is to outline an approach to behavior development that provides a practical and effective basis for answering this question.

The approach to be presented, that of functional behaviorism, provides an advantageous system for designing, and working in, Day Care settings. It affords a simple basis for handling phenomena by providing a ready means of focusing on both functional elements of the environment and the child behaviors affected by them. Further, the approach has direct implications for the management of both deviant and normal behavior and can be communicated easily to people regardless of their educational backgrounds. Functional behaviorism involves several novel psychological emphases which distinguish it both from traditional behavior orientations and from a broad spectrum of nonbehavioral positions, including the cognitive, phenomenological, and psychoanalytic. In order to appreciate the merits of functional behaviorism for the design of Day Care programs, it is necessary to understand its special treatment of a number of familiar concepts, such as stimulus, environment, behavior, learning, and motivation. In the remainder of this chapter we shall briefly examine these and other conceptual emphases as well as their general implications for Day Care.

Environment and Behavior

Though frequently employed in analyses of child development, the concept environment has been used more intuitively than precisely. Objects and events (including people and their behaviors) which are in the child's physical presence often have been termed the (his) "environment," whether

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or not these events have actual or potential relevance for any of the child's behaviors. Such as gross concept has but limited utility in a scientific approach. In a functional analysis, the term environment is a summary term for those events impinging on the individual which could affect his behavior.

Under this conception, behavior and environment are assumed to be co-determined: at no level of analysis can one be considered meaningfully without the other. The unit of analysis of a functional approach is that of stimulus-response, S-R. A response is any movement of the organism that is under the control of environmental stimuli. A stimulus is an environmental event which affects a response of the organism. Responses here are characterized not topographically (in terms of their isolated characteristics as movements) but functionally (in terms of the cues and consequences which control the particular movements). That is, responses having the same topographic content often may serve entirely different ends (e.g., whistling to hear a catchy tune vs. whistling to fill the void of the dark) and, conversely, those having manifestly different topographies may be functionally equivalent (e.g., whistling in the dark vs. hiding under the covers). Thus, the functional approach requires the specification, in parallel detail, of both the behaviors to be fostered and their stimulus determinants. While conventional educational or psychological approaches often have been content to focus on the relationship between demographic or other gross environmental variables (such as social class, gender, or chronological age) and equally rough indices of behavior (such as I.Q. or temperamental traits), a functional analysis examines the co-relationships between observable behaviors and stimuli specified in equivalently fine-grained units.

Given this definition of the functional environment, one can assess the "quality" of an environment. Thus, an abundance of events (physical objects, people, and their behaviors) does not necessarily imply a "rich" environment, unless it is known that those events are available and function as stimuli for various child behaviors. Increasing the number of available events, of course, provides more potential stimuli; however, unless the events affect behavior they are not stimuli, i.e., are nonfunctional, and have no qualitative value. For example, a jungle gym which a handicapped child is unable to climb is part of his surroundings only as an ecological constraint while play blocks he can manipulate provide functional stimuli for some of his ongoing behaviors. Obviously, the quality of an environment may not be revealed by assessing only the availability or abundance of events. Such assessment requires instead an analysis of the events and a determination of whether they actually function as stimuli for behaviors.

Stimulus Control

As noted, a functional analysis is concerned with stimuli to the extent that they have a demonstrable effect on the organism's behavior. There are three major ways in which stimuli may affect ("control") behavior: (1) by eliciting or evoking it, (2) by cuing or directing it, and (3) by reinforcing it, i.e., strengthening or weakening responses.

In an eliciting function, certain stimulus events are capable of evoking specific behaviors either on an unlearned or learned basis. The eye-blink, knee-jerk, and various "emotional" reflexes are examples of seemingly unlearned elicitive control. Elicitive control of such responses also

may be learned, through repeated pairing of an originally neutral stimulus--the conditioned stimulus--with unlearned elicitors--the unconditioned stimuli. This type of learning is known, of course, as classical or Pavlovian conditioning and, although it can order emotional-response conditioning, it does not appear immediately applicable to the various instrumental behavior patterns that are of interest in Day Care settings. Consequently, it will receive less emphasis in this chapter than the paradigm of instrumental or operant conditioning, which refers to the acquisition of stimulus control over behaviors which "operate" on, and produce consequences in, the environment.¹

The cueing or discriminative function and the reinforcing function both apply to instrumental behavior and will be discussed more fully below.

Learning and Development

The preceding three functions--eliciting, cueing, reinforcing--represent the ways in which stimuli may govern behavior. It is not behaviors in the abstract which children acquire, but behaviors in relation to controlling stimuli, and these constitute the essential products of development. A baby does not learn simply to cry (crying is already in his repertoire) but to cry when he feels discomfort, because in the past crying under these conditions has brought relief through mother's ministrations. Presumably, if no one ever responded to his crying under discomfort, crying would cease to occur in that discriminative context (though it might still occur under other conditions).

The conceptions of learning have evolved to provide a basis for interpreting how aspects of an environment acquire discriminative and reinforcement control over behavior. Under this open-ended heading, behavior change is analyzed in terms of such controlling determinants as relevant past experiences with environmental conditions (e.g., reinforcement history) and current stimulus circumstances. The latter can be qualified by performance factors like the learner's "motivational state" at the moment of action (and will be discussed below under contextual qualifiers of behavior). The number of learning mechanisms is arbitrary, and there is always a place among them for concepts that order previously unexplained or unidentified phenomena. In one way or another, the concepts of learning

¹ An earlier distinction between the paradigms of classical (respondent) and instrumental (operant) conditioning now appears to be oversimplified. It was held that respondents are smooth-muscle or glandular responses under the control of the autonomic nervous system and that operants are striated-muscle responses under the control of the somatic nervous system, with only a few instances of overlap. However, conditioned-emotional responses may accompany or even be involved in the maintenance of many instrumental behavior systems, and there is increasing evidence that some emotional and glandular responses can be instrumentally conditioned.

are basic for and implicit in most paradigms in the psychological literature which interpret systematic behavior changes.²

There are numerous standard procedures to effect systematic changes in adaptive behavior patterns, and to provide a basis for comprehending performance dynamics of those behavior systems, many of which may be implemented simultaneously. In this chapter, as noted, the emphasis will be upon instrumental or operant conditioning. This paradigm stresses overt responding and extrinsic reinforcement, and has precursors in Thorndike's (1911) trial-and-error learning and Pavlov's (1928) conditioned reflexes of the "second" type. We owe much of our current understanding of the paradigm's utility and power to the analyses and research generated by B.F. Skinner (1938, 1953, 1957, 1959). Instrumental conditioning constitutes the most widely held adaptive-learning model, and has given the term "reinforcement" much of its contemporary tone. Emphasis upon this operant paradigm, however, precludes neither the use of other learning models or theoretical approaches to order behavior phenomena, nor the integration of those views with the one advanced here. Furthermore, there are supposed learning phenomena that cannot be ordered readily with the concepts of our functional approach, just as there are phenomena that are difficult to explain plausibly without these conceptions. Even so, this instrumental-training paradigm with its routine conditioning concepts has been shown to order efficiently and parsimoniously simple behavior systems as well as such seemingly complex systems as verbal-response acquisition, attachment, and purported learning by observation/imitation (and vicarious reinforcement) (Gewirtz, 1969b, 1971a, 1971b). Thus, it constitutes a useful paradigm for explaining the possible operating modes of learning and motivational factors in Day Care situations.

For the reasons listed, I shall deliberately discuss Day Care phenomena in objective, instrumental-learning terms of discriminative stimuli, responses, and reinforcers (the stimulus-response-reinforcer unit), and shy away from more abstract or subjective terms that can be derived from them, like cognitions, schemata, expectations, or feelings. These last mentioned terms, though translatable into ours, are often given a mentalistic flavor we would prefer to avoid because of the "surplus meaning" usually inherent

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- 2 A list of objective learning concepts and procedures for implementing systematic behavior changes can be found in standard psychology textbooks on various subjects: introductory general psychology (e.g., Kendler, 1963; Kimble and Garmezy, 1968); child psychology (e.g., Bijou and Baer, 1961, 1965; Thompson, 1962; McCandless, 1967; Johnson and Medinnus, 1969); and the processes of learning (e.g., Kimble, 1961; Hilgard and Bower, 1966). This writer has described a number of such concepts reflecting behavior development and control that have been used useful in both short- and long-term developmental analyses and has attempted to delineate these concepts from those employed in other areas of psychological analysis (Gewirtz, 1968a, 1968b, 1969b).

in their use.³ Finally, the use of the term "controlling" stimuli means simply "causation" in its functional sense, i.e., that behavior can be determined by the stimulus conditions in which it occurs.

In summary, when a controlling relationship is formed between a stimulus and a response, learning is said to have occurred. Redirecting or modifying responses, therefore, requires changes in the stimuli controlling them. Learning designates the systematic ways in which environmental inputs modify the co-relationships between behavior and stimuli, and learning concepts belong to every theorist who studies this class of antecedent-consequent functions. As such, this chapter is devoted to a consideration of learning, some of its terms, principles, and qualifying conditions ("motivation") relevant to Day Care. The survey is not exhaustive, but rather is a brief review of salient principles within the Day Care context.

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I shall here detail the reasoning behind the assumption that objective-learning concepts can order subjective-cognitive phenomena. As noted, learning is an open-ended term for concepts that order systematic behavior change due to recurring environmental conditions. Thus these concepts are implicit in most psychological paradigms for interpreting such changes. This applies despite the nature of a theoretical approach, its degree of development, language, or level of analysis, the phenomena it orders, or the heuristic tone given its concepts (e.g., objective or subjective-cognitive), and would hold even when mentalistic or hypothetical entities are invoked to account for systematic behavior change. The latter could include intrapsychic representation processes like "schemas" and "images" that are difficult to evaluate since they seem devised to characterize euphemistically, in common-sense terms, the intra-subject bases of behavior in a given context. More important, approaches using such constructs to characterize cognitive processes are inexplicit about how stimuli and responses are actually tied to them. Further, as used by well-known writers (e.g., Bruner, Kagan, or Piaget), these theoretical terms are phrased as if they are "structures" existing within the child. They are not labeled for what they really are: abstractions intended only to identify apparent consistencies in particular behavior systems (S-R patterns) of the child, viz., "object permanence." Thus their use can obscure the distinction between the statement of a problem and its explanation; and empirical questions can lose their importance or appear to be solved simply through the application of cognitive or structural terms to the phenomena at issue. However, recourse to such terminology may reflect only a researcher's attempt to explain the child's actions by concepts which seem more differentiated and complex than is, say, the "S-R bond."

A behavioral approach assumes that it can index and order seemingly complex behavior by a differentiated, yet operational, analysis. To this end, it permits grouping the functional relations between children's responses and their controlling stimuli by the type of control process, content, or some other seemingly relevant principle. Organized patterns of S-R relations thus may be identified under a learning approach and labeled to represent a higher order of classification. These patterns may encompass some of the events and S-R relations that underlie the cognitive concepts invoked by other theoretical approaches. One might find it useful to assign to some such organized patterns of S-R relations labels like "schema," as in the "schema of mother"; however, because of the cautions noted in this chapter, these labels would be used only as descriptive and not as "explanatory" terms.

Section A

PRINCIPLES OF BEHAVIOR ACQUISITION AND MODIFICATIONConcepts for How Responses are Learned

Reinforcement. Reinforcement is of prime consideration in the acquisition and maintenance of instrumental behavior. Any identified event which immediately follows a response and effects a change in that response rate (i.e., an event upon which the response has been made contingent) is defined as a reinforcing stimulus or reinforcer. Positive reinforcers increase, whereas negative or aversive reinforcers decrease, the subsequent likelihood of response occurrence (i.e., its rate). Thus, in giving a child a cookie as soon as he has picked up his toys, one may reinforce positively the behavior of putting away toys--if cookies given contingently increase the subsequent likelihood of that behavior. Similarly, sending a child to his room for writing on walls is negative reinforcement for that undesired behavior, if the consequence is decreased wall-writing behavior.

A large variety of events and conditions can function as reinforcers in addition to those thought to meet organismic needs, like food, water, and the removal of aversive conditions. Events that constitute reinforcers for behavior will vary from child to child, depending on a child's make-up and particular learning history. (They can vary also for a given child from context to context.) (See contextual qualifiers below.) Toys and opportunities to participate in special activities (visiting the zoo, buying new clothes) commonly function as reinforcers for child behaviors, as do adult responses denoting attention or approval. To be maximally effective, reinforcers should instantaneously follow response occurrence.

In life situations, reinforcement rarely is provided after every response occurrence. Instead, reinforcers are presented on different schedules and only some response instances are reinforced. A schedule of reinforcement specifies which response occurrences will be reinforced. Thus reinforcement can be continuous, i.e., occur after every response, or intermittent, and occur either after a specified number of responses (ratio) or after a specified interval of time (interval). (These ratios or intervals may be fixed, i.e., constant, or variable, i.e., varying about some specified average.) A variety of other reinforcement schedules have been and can be devised, including simultaneous or successive combinations of the ones listed above. Each schedule has a characteristic effect on the response rate while it operates, and subsequently accounts for these responses being differentially resistant to extinction when reinforcement is withdrawn.

Positive reinforcement of a response is one way to establish a desired behavior outcome. However, this procedure assumes that the desired behavior is already in the child's repertoire, and only needs to be increased in frequency or brought under stimulus control, which is often not the case. When a response is not in the child's repertoire the desired outcome may be facilitated by response shaping. This procedure involves the differential reinforcement of increasingly closer approximations to the final response; this occurs naturally in life settings and contributes to a significant proportion of the behavioral repertoire acquired by the child through socialization. Baby coos, mother imitates, thus reinforcing the response. On

day, when baby makes a noise which sounds like a word, mother reinforces him immediately. By reinforcing responses successively closer to the desired outcome, she gradually can shape baby's vocal behavior to approximate a recognizable word.

The application of response shaping to Day Care procedures can be illustrated by the modification of an "inactive" nursery-school child's behavior (Johnston, et al., 1966). In this case teachers reported that the child consistently stood quietly about the play yard while his peers played with the variety of objects; thus, an attempt was made to strengthen his play behaviors. Climbing a large wooden frame with ladders, platform, ropes, etc., was selected as the desired behavior outcome for the child. However, since he showed almost no frame-climbing behavior that teachers could reinforce, it was necessary to reinforce successive approximations of that behavior--i.e., to shape it. At the start, the child gained teacher approval by merely being near the frame. As he came closer, the criteria for reinforcement were narrowed, requiring him to come still closer to the frame, to touch it, and eventually to climb on it. After nine days of this procedure, frame-climbing increased from an initial level of less than 10% of the morning to over 50%.

Another easily applied procedure which most mothers will recognize was identified by Premack (1959, 1962). He found that the opportunity for an individual to engage in a more frequent (probable) behavior can be used as a positive reinforcer for a less frequent behavior. For example, the opportunity to play outdoors, a highly probable child behavior, can reinforce making the bed, a less probable behavior. This principle is basically an "if-then" statement: if you do this, then you can do that. Utilizing this approach in Day Care situations could (1) avoid the need to dispense punishment to control behavior, while (2) simultaneously establishing desired behaviors. Thus, access to play materials can be made contingent on a period of sitting quietly and listening to the caregiver or teacher. An early use of Premack's principle involved controlling the disruptive behavior of three year olds in a nursery school (Monroe, et al., 1963). High probability behaviors, such as running around the room, screaming, and pushing chairs, were made contingent on desired behaviors, e.g., sitting quietly and looking at a blackboard for a short period of time. Control over the disruptive behaviors was reported to be virtually perfect after a few days.

Discriminative stimuli are cues which regularly precede a reinforced response, and thus come to function as a signal that the response, if made, is likely to be reinforced in the future. In this way a discriminative stimulus is said to control behavior; it sets the occasion for the appropriateness of a response. The natural environment provides many discriminative stimuli, and an important part of a child's learning consists of determining which behaviors are appropriate to which settings. For instance, mother responds to the child only when her eyes are open; and pedestrians are permitted to cross the street only when the walk sign flashes. Language often functions to provide discriminative stimuli. Mother calls, "Dinner is ready" and regularly follows these words by serving a meal. The child's response of entering the dining room and sitting at the table will be reinforced by his receiving food. While the implication of "Dinner is ready" may seem obvious, if the words were not followed by appropriate actions, people would stop coming to the dining room on cue.

Fading-the-stimulus is a potent procedure for transferring response control from one stimulus to another without disruptive performance (e.g., through the possible occurrence of emotional behaviors). For instance, if the discriminative stimuli established to control responding are geometric forms, their controlling function could be transferred to colors. This may be done by gradually eliminating the distinctiveness of the geometric outline while increasing the intensity of the color values and maintaining differential reinforcement.

Conditioned reinforcers. A neutral stimulus that systematically precedes, or is simply associated with, a functioning extrinsic reinforcer, may acquire reinforcing value for behavior. It is then termed a conditioned (acquired, secondary) reinforcer. As long as it is at least occasionally paired with extrinsic functional reinforcers, a conditioned reinforcing stimulus can maintain a response that has immediately preceded it in an S-R chain. In fact, when the association occurs only intermittently, the conditioned reinforcer is made more durable in maintaining responses (cf., e.g., Zimmerman, 1963). The conditioned reinforcer thus may function as a probabilistic "promise" that the functional reinforcer with which it is associated will follow. (This parallels the definition of a discriminative stimulus which, as noted, may be conceived as a cue that implies a certain probability of reinforcement if the correct response is exhibited.) Thus, after a child has helped mother prepare a meal, mother's saying "Dinner is ready" can function both as a conditioned reinforcer for the child for helping the mother and as a discriminative stimulus for entering the dining room and sitting at the table. Generalized conditioned reinforcers are those which function in many S-R chains and hence can derive reinforcer value for a great variety of child responses. Some likely examples are money and an adult's attention.

In some situations, it may be impractical to rely solely upon functional reinforcers to maintain a response, either because of the time delay between response occurrence and reinforcement provision or the interruption of the ongoing activity created by reinforcement presentation. Thus, there are occasions when it is desirable to build-in stimuli, such as "tokens" or "points," which can function as intermediate or "holding" reinforcers. Token reinforcement is one variant of conditioned reinforcement in which tokens are established as a "currency," usually via instruction, and they are often employed in "token economy" systems. For instance, certain desirable behaviors of adult psychotics in a mental hospital were strengthened by applying operant techniques (Ayllon and Azrin, 1965, 1968). Functional reinforcement consisted of the opportunity to engage in behaviors which had a high probability of occurrence in unrestricted settings. Since the reinforcement occasion could not always be provided immediately, or without disruption of the desired behavior, tokens were instituted as (conditioned) reinforcers. Many different jobs could be performed to earn tokens, such as serving meals, cleaning tables, sweeping a walkway, etc. Tokens were given to the patient after he had completed the specified task and could be exchanged for a variety of functional reinforcers, such as, being given one's choice of room or bedspread, receiving leave from the ward, or having consultations with the professional staff. A series of experiments indicated that the token-reinforcement procedure was useful in maintaining the desired behavior. In each experiment the performance fell to a near-zero level when the response-reinforcement relation was discontinued, but its reintroduction

restored performance almost immediately.

Contingency contracting. One well-articulated system for motivating children, based on the reinforcement principle, is contingency contracting (Homme, *et al.*, 1969). It was recently developed for use with individuals or groups in the classroom; however, it is applicable in any task-oriented situation, including Day Care, where it may be necessary to "motivate" participants in the post-infancy age range. A contingency contract is just what its name implies: it states an outcome (reinforcement) which is contingent on the completion of a given task. The contract is always written in positive terms and follows the form: "If you do X, then you may do (or will get) Y" (*Ibid.*, p. 32). It is never written: "In order to avoid punishment, you must do such and such a task" (*Ibid.*, p. 4). Its language is made simple, so it can be understood easily by both parties to the contract. To make a contract, it is necessary to (1) specify the task and (2) identify an appropriate reinforcer. A reinforcing event is one which is both highly desirable and not obtainable outside the contract. Usually the child is the best source of information on what will function as a positive reinforcer for his behavior. Pay off should immediately follow task completion, though points or tokens may be used as intermediate rewards. Moreover, performance requirements should be small to insure success and the opportunity for frequent reinforcement.

The key aspects in preparing a contingency contract are to specify: (1) the task assignment, including amount of work required and the criteria for its completion; (2) the amount of reinforcement; and (3) the beginning and end of both tasks and reinforcers. For school age children who read, using tasks cards can insure fulfillment of these requirements. A sample card might state: "Read pages 27-32 of your text. Take the progress test. If passed, take 5 minutes for reward time. If not passed, see the teacher" (*Ibid.*, p. 35). (For a specification of what contracting involves, ten basic rules on the use of reinforcers and the characteristics of a proper contract are given in Chapter 3 of the reference cited above).

The positive impact of the contingency contracting on children and caregivers should not be underestimated. As Homme, *et al.*, note: "There is a kind of joy in their activities; they seem to have a feeling of delight in their willing and conscious accomplishment and their well-deserved rewards. Observing and participating in this kind of learning is, in turn, the greatest reward teachers or parents can experience" (*Ibid.*, p. 21). The procedures described above can be modified for Day Care situations where the specified tasks for children might involve: sitting quietly and working a puzzle, picking up toys in the play area, helping teacher serve lunch, dressing for outdoor activities without adult help, and successfully completing units of school work or other learning tasks.

Eliminating Unwanted Behaviors

So far, we have been concerned with the acquisition of specified behaviors, and with utilizing reinforcing and discriminative stimuli to facilitate the process. Eliminating unwanted behaviors is a complementary operation, and can be accomplished through the procedures of reinforcement of incompatible responses, extinction, or punishment.

Reinforcing incompatible responses. This procedure involves the contingent application of positive reinforcement to behavior which is not compatible with the undesired response. For example, a child may be whiny and cranky. Mother says he may watch television if he sits quietly and listens. The positive reinforcer, television viewing, is given only if the child sits quietly, watching, and listening--a response pattern which is incompatible with crying. This simple procedure might be described as applying leverage in the desired direction. Reinforcement increases the likelihood of a desirable response occurring. Further, the child, by engaging in the desired behavior, is physically unable to perform the unwanted response. This procedure has several advantages over both extinction and punishment, as will be noted.

Extinction. In an extinction procedure, reinforcers that have been maintaining a response are withheld. As a consequence, the response rate declines to the level it was prior to the reinforcement procedure. Ease (i.e., rate) of extinction depends on the schedule of reinforcement that has been maintaining the behavior. Thus, the response rate will return to base level faster during extinction when the behavior was earlier maintained on a continuous rather than on some intermittent schedule. However, extinction--the complete withdrawal of the reinforcing stimulus--may result in the child's exhibiting undesired emotional responses, e.g., "frustration" stress." This undesirable effect can be avoided by the procedure of noncontingent "reinforcement" presentations. However, response rate will decline relatively slowly under this method as compared with a straightforward extinction procedure. Perhaps a better method to preclude the occurrence of emotional behaviors in early extinction phases is the reinforcement of incompatible responses.

The use of extinction can be illustrated by the systematic manipulation of excessive crying rates in two pre-school children (Hart, et al., 1964). In both cases teacher attention was identified as the relevant reinforcing stimulus maintaining the crying behavior. After a ten day period of base level crying had been recorded for each child, the teacher simply discontinued attending to the child when he cried. This extinction procedure reduced the crying rate in both children from a base rate of five or more episodes per morning to two or less. An extinction procedure was also used to reduce tantrum behavior at bedtime in a 21-month-old boy (Williams, 1959). Adult attention seemed to be maintaining the behavior and therefore was withdrawn after the undesired response. Within ten days the tantrums decreased from a duration of 45 minutes to zero.

Combining extinction with the reinforcement of incompatible responses is an even more effective and constructive procedure than the use of either alone. Thus, several studies on the control of disruptive behavior in the classroom have combined withdrawal of teacher attention to students exhibiting disruptive behavior with contingent attending to those exhibiting "study" behaviors (Zimmerman and Zimmerman, 1962; Hall, et al., 1968; Madsen, et al., 1968; Thomas, et al., 1968). In each of these studies, the educationally desirable behaviors increased and the undesired behaviors decreased. This combined procedure was similarly used to lower the high rate of infant crying in a hospital nursery (Etzel and Gewirtz, 1967). Observation suggested that the crying was being maintained by caretaker attention. In order to decrease the rate of crying, withdrawal of attention for crying behavior was combined with the reinforcement of incompatible responses,

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namely eye contact and smiling. Such procedures might well be used in Day Care settings, particularly with problem infants.

Punishment. This procedure consists of attaching a "response cost" (Baer and Sherman, 1970) to a specified behavior by either presenting an aversive stimulus (e.g., a slap) or withdrawing a positive reinforcer (e.g., attention, a toy) following the occurrence of an undesired behavior. Punishment may be used when the procedures discussed above are difficult to implement or there are urgent reasons for obtaining the desired effect. For example, a child may be discovered playing with matches, something he was warned not to do. His mother may spank him, providing an unpleasant consequence of the prescribed behavior. Alternatively, mother might have said: "Since you've been playing with matches, you won't have dessert tonight." This involves removal of a demonstrated positive reinforcer, dessert, as a consequence of the same unwanted behavior.

Both forms of punishment are used by socializing agents. Due to the unwanted and diverse side effects sometimes associated with the use of unpleasant stimuli, punishment is a controversial subject in the learning literature. Used alone, punishment has only a temporary suppressive effect on the unwanted behaviors. In addition, it often evokes emotional (crying) and aggressive (hitting back) responses which interfere with opportunities for more adaptive behaviors to occur and to be reinforced. Further, the task of inflicting punishment is often distasteful for a caregiver.

The results of punishment are usually specific to the situation. For example, punishment for playing with matches at grandmother's house may not prevent the occurrence of that behavior in mother's home. Also, where escape or avoidance is possible, punishment may lead the child to withdraw from all interaction with the punishing agents. Thus, this author argues against the general use of aversive (unpleasant) stimuli to eliminate unwanted behaviors, except where it appears to be the only recourse to keep the child away from major hazards. A more desirable arrangement would be either (1) the contingent withdrawal of a previously available reinforcer (removal of dessert in the example), or (2) the contingent presentation of an aversive stimulus coupled with the opportunity to engage in alternative behaviors which result in positive reinforcement. An example of the second case would be slapping a child for lighting matches in the house, while making it possible for him to play with clay and be reinforced for it.

One technique commonly employed is known as "time-out." This form of "response cost" is illustrated by conventional practices, such as the "deprivation" of privileges and social isolation. Thus, tantrums and self-destructive behaviors in a temporarily institutionalized boy were markedly reduced simply by placing him in his room on the occasion of each response (Wolf, et al., 1964). When tantrum behavior ceased, the child was allowed out of his room. This procedure also was used to control the misbehavior of delinquent adolescents around a pool table. Confinement in an isolation room of a training school cottage was made an immediate and necessary consequence of specific misbehaviors, and all children misbehaved less under the punishment condition (Tyler and Brown, 1967). Time-out may be more acceptable to caregivers than punishment, because it does not involve physical discipline and yet is an immediate intervention which separates the child from those affected by his undesirable behavior or

keeps the child from endangering himself.

SOME DERIVATIVE PROCESSES BASED ON THE INSTRUMENTAL-LEARNING PARADIGM AND EXTRINSIC REINFORCEMENT

We have seen that the instrumental-conditioning paradigm and its associated concept of extrinsic reinforcement can order a wide range of learning phenomena. We shall now detail its applicability for several seemingly complex behavioral processes: a) the child as conditioner of his caregiving environment; b) verbal behavior; c) attachment; and d) imitative learning (and "vicarious-reinforcement"). Models for the acquisition and performance of such behavior systems have obvious implications for what can be fostered in Day Care. Imitative learning, in particular, suggests a basis for readily implementing a generalized learning orientation in children. This can be especially useful for children who have fallen behind their peers in behavioral development and thus have much "catching-up" to do.

The Child Conditions as He Becomes Conditioned

It is axiomatic that caregiver-child interactions provide many occasions for mutual stimulation and reinforcement. A corollary is that both interactors provide stimuli which can acquire control over--i.e., condition--behaviors of the other. There has been too little emphasis on how the behaviors of socializing agents adapt to those of their charges (for exceptions, see Gewirtz, 1961b, 1969b; Bell, 1968). Yet, just as the caregiver can condition the child's behaviors by providing reinforcing consequences, so also can the child's behaviors mediate reinforcing stimuli that condition behaviors of the caregiver. In this way the socializing environment is also "socialized!" Thus the child's smiling, vocalizing, reaching toward, eating "well," ceasing to cry, or solving problems correctly can heavily reinforce many of the adult's behaviors (Gewirtz, 1969b). On this basis, "baby talk" or outlandish grimaces can enter the caregiver's behavior repertory, as a function of differential reinforcement provided by the infant. And a caregiver may become "attached" to her charge on the same conditioned-reinforcement basis that is thought to underlie the child's "attachment" to his caregiver: stimuli provided by the young child are associated with diverse potent reinforcers and thus become cues and conditioned reinforcers for the caregiver's behaviors.

The conditioning of caregiver behaviors by the infant does not always have constructive implications, as illustrated by caregiver responses to high-rate instrumental crying. Since crying has strong aversive qualities, most adults will attempt in various ways to stop an infant's crying. These attempts can sometimes have undesirable consequences, as when a caregiver interrupts some activity (such as the care of another infant in a Day Care facility) to attend to the crier. Moreover, when a caregiver succeeds, her response is heavily reinforced and this increases the likelihood that she will attend to that child in the same way when he cries again. Such attention is a potent reinforcer for the infant's crying. Thus, although the caregiver attains momentary relief by attending to the infant, the long-range effect is to increase the very infant behaviors which are aversive for the caregiver. (Gewirtz and Etzel, 1967, have presented an analysis of the vicious cycle inherent in this mutual conditioning process.)

Verbal Behavior and Language

The processes described in this chapter encompass both motor and vocal (including verbal-language) responses. Although verbal responses need not be singled out for special emphasis, they are important for the human socialization process. First-language acquisition is a particularly significant correlate and outcome of that socialization. Language is also perhaps the most complex human behavior system. Deficiencies in the production and intelligent reception of language are noted readily by the community, and often are used as sensitive indicators of deficient experience histories and the need for remedial treatment.

Whether language learning and performance can be sufficiently accounted for by a straight experiential analysis of verbal-behavior acquisition, in which overt responding and extrinsic reinforcement principles play a central role, has been a controversial subject. Indeed, some have thought that the organization of verbal responses into language may depend upon an innate, maturational structure (Chomsky, 1959, 1963, 1968; Fodor, 1967; Lenneberg, 1967). However, there is very little theory underlying such nativistic approaches that specifies how and at what levels the innate substrate of language ability interacts with experience as learning. Nor is there any specification of the genetic process capable of transmitting the endowed information that supposedly underlies language acquisition. Hence, many formulations favoring innate factors as the basis for first-language acquisition may amount to little more than the claim that it is the outcome of a brain, a voice box, a mouth, and two ears innately present and functional in the child.

The empirical approach of this chapter is far from a complete explanation of language acquisition. However, my contention is that it is a reasonable one which is potentially more profitable, both as a research tool and for practical application, than a rational but nonexperimental nativistic approach based on intuitive evidence. Because conditioning approaches to language acquisition, that in broad outline are compatible with the one of this chapter, have been advanced by Skinner (1957), Braine (1963), Jenkins and Palermo (1964), and Crothers and Suppes (1967), among others. Basically, verbal language is a symbolic code for both the physical and intangible or inferred contents of the world, and for the complex interrelationships among them. In mastering such a symbolic code, three general systems must be learned: (1) the medium of the code (phonetic, as opposed to sign or graphic); (2) the semantic units of the code (morphemes, words) as designators of discriminated environmental events; and (3) the grammar of the code (word orderings, inflections, tense-case-gender markings, etc.) which permits representation of events-in-relationship. Each of these systems, furthermore, includes a comprehension or "listener" aspect and a production or "speaker" aspect. Thus, mastering of the first component, the medium, involves learning both to discriminate and produce its distinctive expressive features. Likewise, semantic proficiency involves being able to both identify referents when words are presented and emit appropriate words when their referents are presented. And again, proper grammatical knowledge implies the ability to differentiate the complex interrelationships designated by sequential or inflective codings (e.g., to distinguish the designata of "John hits Mary" from "Mary hits John") and to emit grammatical sentences as proper symbolizations of complex interacting events.

Acquisition of each of these systems may be facilitated by a variety of learning principles. On the production side, semantics, grammar and medium-learning all appear to be explicable by the discriminative-operant paradigm. For example, the appropriate emission of individual words requires their having come under the discriminative control of consensually differentiated attributes of objects and events, and likewise the proper production of word sequences requires their having come under the control of abstract relational aspects of the environment. Discriminative training, in which correct labeling or grammatical utterances lead to reinforcement (including that provided by a successful communication) and incorrect verbalizations lead to nonreinforcement, would play the formative role in the acquisition of such linguistic proficiency. In addition, response-shaping procedures (discussed earlier) as well as direct imitative training and generalized imitation (to be discussed below) also would play formative roles, especially in learning correct verbal communication (e.g., appropriate production). The generative aspect of grammatical production (e.g., the ability to say "toys" after having learned the plural form "toys," or erroneously to emit "I goed" after having learned "I moved") appear to be instances of a conditional-discrimination or a discrimination-within-discrimination mechanism. By conditional-discrimination is meant learning to attend to stimulus A (or attribute A) in one context and to stimulus B (or attribute B) in another context (e.g., to look for knives and forks in the kitchen, and for pillows and mattresses in the bedroom).⁴ The ability to apply grammatical rules to generate new utterances would be an instance of generalized conditional discrimination, one in which the speaker is directed (a) by common elements in the context (present or past time, singularity or plurality of instances, etc.) to attend to appropriate aspects of the lexical items (the particular form of the verb or noun to be uttered) and (b) by commonalities between these items and known forms to emit an appropriate inflection, verb tense, or whatever.

On the comprehension side, acquisition would proceed by another discrimination mechanism called match-to-sample, or, in this case, symbolic match-to-sample. Here a linguistic symbol (like a spoken word) would serve as a standard to which a discriminated aspect of the environment must be matched. Likewise, a grammatical form would serve as a standard to which a relationship must be matched. Recent work by Premack (1970a, 1970b) in training a chimpanzee to use varied visual forms as language symbols has made considerable use of the match-to-sample technique to solidify semantic and grammatical comprehension. Learning to discriminate phonemes of the language would involve additional procedures, such as stimulus fading and progressive stimulus differentiation (beginning with extreme stimulus differences and gradually refining down to smaller differences).

The approach outlined here also allows one to focus on the interaction between child and socializing agent, which means between "talker" and "listener" as these roles cycle between the two people (whether motor or verbal responses or both are involved in an interchange). As such, a learning approach can analyze the verbal (and other) responses of one person as constituting both discriminative and reinforcing stimuli for the verbal responses of the other person. Once verbal responses are

4 It has been argued with good reason that all discrimination learning is conditional and that to learn otherwise may be maladaptive.

quired, they will be maintained by replies made to them in conversational interchanges, according to the same principles which account for the maintenance of other responses.

On Attachment

In a functional learning analysis, the term attachment (relationship, relationship) is an abstraction for the sets of S-R relationships that involve the (mostly) positive stimulus control over a wide variety of one individual's (e.g., the child's) responses by the stimuli provided by a particular other person (e.g., his main caregiver).⁵ The effectiveness of discriminative reinforcing stimuli in controlling an individual's behavior systems comes to depend upon the unique physical and behavioral characteristics of a particular "object" person from whom those stimuli derive. While it has been thought a child will ordinarily acquire a pervasive attachment to a person (e.g., his mother), by our analysis he could acquire attachments to several persons. Certain of his behavior systems could be controlled actively by the stimuli provided by the unique characteristics of one person, while other behavior systems could be controlled by the different stimuli from the unique characteristics of another person. These attachments could be acquired at different life points (Gewirtz, 1969a, 1969b). The range of behaviors involved, the degree of positive control, the degree of disorganization that ensues from interference with this attachment (e.g., from novel conditions), could all index the "strength" of the attachment.

In this learning approach, it is assumed that many classes of stimuli from a particular person, in addition to those directly related to organismic survival, are functional for the acquisition and maintenance of a set of child behaviors. These stimuli would include touching and caressing, visual events provided by the sight of people, and characteristic behaviors like speech. Some of these events may function as unconditional reinforcers, while others acquire conditioned value for the child's behaviors. The acquisition of the stimulus-response patterns connoting attachment, therefore, is conceived to involve two simultaneous processes which begin when the child is helpless and relatively immobile: (1) the conditioning of the child's behavioral characteristics of a particular person as discriminative stimuli for the child; and, (2) the reinforcement and maintenance of the child's behavior systems by the diverse stimuli provided by that person.

Elsewhere in this chapter, any shift in the child's maintaining environment, as might occur in a long-term separation or in the initial attendance at a Day Care center, consequently leads to a shift in the stimuli for his behaviors and, thus, often to changes in the pattern of responses. The greater the similarity between the stimuli provided in the two environments, in terms of caregiving routines and caregiver response definitions for reinforcement, and reinforcement itself, the easier it will be for the child to adjust to the new environment. Attachment will also be facilitated by any similarity

between the stimuli provided by the responses of any one of a class of other than a particular person, the behavior system has been analyzed in detail elsewhere. More complete analyses of the topic can be found in several of the author's papers (Gewirtz, 1961a, 1961b, 1968a, 1969b, 1971b, 1971c).

in the gender or facial features of caregivers. Indeed, if the new environment is benevolent and responsive positively to the child, then not only will his initial responses be reinforced and maintained, but also a new set of adaptive learnings can occur, including those connoting new attachments.

Imitative Learning

Conventionally, there are thought to be at least two types of processes by which children acquire instrumental (including social) behavior patterns and the values and attitudes these patterns reflect. So far, I have emphasized only the first of these--learning based on direct instrumental training, where the reinforcing agencies are relatively explicit about the responses a child must acquire. In the second kind of socialization learning termed imitation (-identification), the child matches his responses to the (cues provided by the) behavior patterns of demonstrator-models, usually adults and other children.⁶

My thesis concerning observational learning is the opposite of the widely-held position that imitative responses are acquired without direct instrumental training and assumes, instead, that imitative responses are simply instrumental responses that are matched to the cues provided by the diverse responses of demonstrator-models. Such responses are termed conditional or matching-to-sample responses. These constitute a functional response class for the child called generalized imitation, which is acquired through overt responding and extrinsic reinforcement from socializing agents, and is subsequently maintained by intermittent extrinsic reinforcement. The first matching responses by the child will occur either through chance, physical assistance, or shaping procedures. Additions to that matching response class occur routinely, and differences in response content are unimportant as long as the responses are members of the imitative response class as functionally defined by reinforcing agents. Thus, responses in the matching class are diverse in content, and discrimination is unlikely to occur between matched behaviors that have been reinforced

6 Some theorists have stressed the mechanism of observational learning as the basis for imitation and identification (e.g., Bandura, 1969), and have assumed it proceeds without either explicit training or extrinsic reinforcement for overt responding. According to this position, a child observer-learner can acquire matching behaviors simply through exposure to a model's response, even though the observer has not overtly performed the matching response and extrinsic reinforcers are administered neither to him nor to the model. This matching response may be exhibited after lengthy delays or in the model's absence. It may appear that such phenomena are anomalous under the instrumental-conditioning paradigm of which overt responding and contingent extrinsic reinforcement are critical facets, and that new theories, for example those containing cognitive terms, are required to order them (e.g., Bandura and Walters, 1963; Bandura, 1969). However, our heuristic posture is that such pessimism about S-R theory is premature, and may be due in part to the fact that the behavior-change phenomena at issue have been considered mostly in an ahistorical frame. When considered in the framework of a child's earlier conditioning history and the overall maintaining stimulus context, such phenomena are readily explicable in terms of routine conditioning concepts, in particular instrumental responding, extrinsic reinforcement, and acquired conditional or discriminative stimulus control.

and those that have not. Some matching responses never directly reinforced will therefore persist, unless they are either specifically punished or incompatible with stronger repertory responses (Gewirtz and Stingle, 1968; Gewirtz, 1969b, 1971a, 1971d).

An experiment by Baer, Peterson, and Sherman (1967) provides a dramatic demonstration of imitation learning that has practical implications. By first physically assisting the child to make the desired matching responses and then immediately reinforcing each such response, Baer, et al., taught several imitative responses to "retarded" children whose behavior repertoires did not appear to include imitation. After training on a few such responses, each child could then imitate, unassisted, newly demonstrated responses and eventually response chains, as well as responses that were never directly reinforced but had been interspersed among reinforced imitative responses. A similar paradigm for conditioning imitation of verbal responses in initially-mute schizophrenic children also has been successfully used (Lovaas, et al., 1966).

Regardless of the setting in which a child is reared, if socialization occurs in the absence of older models who could provide examples for and directly reinforce a child's behaviors, it will be more difficult for the child to acquire the increasingly mature behaviors expected of him. In such a nonmodeling context, the socialization process would have to depend almost entirely on direct instrumental training involving extrinsic reinforcement for specified responses. Considering the number of response systems to be modified, this process would be both time and energy consuming. The socializing agent would have to monitor continuously the child's behaviors, be prepared to respond to them, and decide, on the basis of behaviors assumed appropriate for the child's age level, which behaviors to reinforce differentially. All the while, that agent would have to take into account the child's existing behavioral repertory and level of physical and social development. This would be a difficult task indeed as compared to the child's learning through being reinforced for matching selected responses of a demonstrator-model, and would be an inefficient procedure for the typical Day Care center.

The conditional matching-response class termed generalized imitation is an important base for the initial occurrence and subsequent expansion of the child's language repertory. Once verbal responses are acquired, they will be maintained by conversational responses made to them, according to the same principles that account for the maintenance of nonverbal responses. As the child's capacities change, so will the behaviors for which he is reinforced. The agents reinforcing him also will vary, and each will reinforce the child on a different schedule and for different behaviors. Despite this continual change, one thing remains constant for the child: the imitative response class continues to be reinforced at a high intermittent

rate throughout his development.

Section B

THE ROLES OF MOTIVATION IN LEARNING ANALYSES

The phenomena usually grouped under the heading motivation (or the related terms "drive," "need," and "motive") are relevant for nearly all theoretical analyses of social learning. In recent years, however, there has been an increasing realization that even the better conceptualizations of these phenomena have been far from adequate. Because motivational terms have served diverse functions, there has been some confusion as to which function a particular motivational term is serving at a particular time. These varied usages severely limit the precision of conceptualization in this area.

No argument will be made in this chapter against the study of phenomena usually grouped under the heading of motivation (for these are important to nearly all theoretical approaches), nor against the use of motivation labels per se (for a label is only a word, and words can be employed

- 7 There are theorists (Hilgard and Bower, 1966; John, et al., 1968; Bandura, 1969) who appear to have assumed that learning-by-observation is a primary prepotent acquisition process, a capacity of the organism as it were. However, few of the researchers on this subject have even attempted to rule out the possibility that such phenomena may represent only a case of routine instrumental learning or conditional responding, where the presence of a demonstrator-model only functions to expedite the conditioning procedure. Further, there have been rather few (if any) attempts to implement the necessary controls (or assessments) for possibly relevant experience of an organism, to rule out the possibility that stimuli either a) relevant to earlier-acquired learning sets or b) provided under an experimental condition that earlier was conditioned to control the relevant response, might give the appearance of learning-by-observation. Therefore, at present, the instrumental-conditioning and extrinsic reinforcement conceptions, of which conditional responding is an extension, can stand as an efficient and parsimonious model for learning in the seeming absence of both overt-response trials and extrinsic reinforcement. It can also explain cases of "vicarious reinforcement," where extrinsic reinforcement administered to a demonstrator-model contingent upon a particular behavior can increase the likelihood that an observing child will match that behavior. After the child-observer has been routinely reinforced for the imitative matching of various demonstrator-model's reinforced responses, reinforcement provided contingent upon a model's behavior could come to function as a generalized cue for the high probability of extrinsic reinforcement to the observer when he matches that behavior (Gewirtz and Stingle, 1968).
- 8 In this context, some have wondered whether a distinct concept of motivation might not disappear as functionally unnecessary (e.g., Cofer, 1959) whereas some have routinely found the need for a special concept of motivation unnecessary (in particular, Skinner, 1938, 1953).

constructively or obscurely). However, it is my thesis that the use of motivational concepts in analyses of early human learning often is unwarranted and even detrimental and that routine learning concepts can provide a more efficient account of most of the behavior phenomena in early childhood.

Such phenomena need no special conceptual treatment but can be analyzed in terms of the types of stimulus control--eliciting, discriminative-control, or reinforcing--presumed to operate in all other behavioral instances, and also in terms of the contextual conditions affecting the potency of these stimulus control conditions. This approach could attend to the stimuli impinging on the child in early infancy, their temporal relationships with his behaviors, and the contextual conditions that account for variations in the discriminability and reinforcing effectiveness of the stimuli. The behavior of infants would be catalogued in terms of the number and variety of stimuli that potentially may evoke and reinforce each behavior, and the accompanying contextual setting conditions, rather than singling out and perhaps reifying a few vaguely defined stimuli from the large number that might be operating. A functional learning analysis thus would have directional implications that are lacking under drive models of social behavior, i.e., it would indicate which behaviors will be affected and in what manner.

The various uses of drive conceptions in early human social development and their consequences as considered here are: (1) unlearned drives, in particular so-called "natural motivation"; (2) learned drives; and (3) stimulus privation and deprivation. At the end of this section, I shall consider some contextual qualifiers of stimulus potency, many of which often have been labeled motivational or drive factors when viewed as momentary determinants of performance.

Unlearned Drives

Unlearned, instinctive drives for certain stimuli have been postulated to explain a variety of behavioral regularities in early human development, for example: the "innate need of the child for a loving relationship" (Ribble, 1943, 1944, 1965); an "attachment need" that leads one to seek proximity with members of one's species (Schaffer and Emerson, 1964); and, a need to value things consistent with or like the self (Kohlberg, 1966). Drive terms also have been used to explain behavior patterns, such as "curiosity" (Berlyne, 1950), "exploration" (Montgomery, 1951), those connoting "intrinsic motivation" (Harlow, 1950, 1953; White, 1959) and a "manipulation" motive (Mazur, *et al.*, 1950) as conceived in the need-for-stimulation context. There are, in addition, various overlapping conceptions which attempt to subsume other nonphysiological drives. These have been employed as bases for such social phenomena as imitation and identification as well as emotional dependence and attachment, and have included "competence-effectance-mastery" motives (White, 1959; Kohlberg, 1966, 1969), "information-processing" (Hunt, 1963), and similar motives.

The preoccupation of psychologists with such drives has resulted in confusion and a lack of explanatory rigor. Drive concepts refer imperfectly to only one side of the two-sided interchange between child and environment. As presently formulated, these motives can be inferred only from the very behaviors they have been devised and to explain. Therefore, they serve more as labels than as explanations, and in no way advance the analyses or research

of theorists employing them. Those researchers are still left with the tactical problem of determining the environmental conditions under which a child is differentially responsive to particular stimuli, since these are the conditions that could affect acquisition and maintenance of those responses of the child.

A parsimonious alternative to this frequent use of motivational concepts would be to rid ourselves of the extraneous conceptions of "drives," "needs," "motives," "energies," and "urges," and to emphasize the assumption that a fundamental property of man, at all ages, is potential responsiveness to stimuli comprising the environment, even when organismic requirements are satisfied. Given that responsiveness and action partly define the living organism (cf., e.g. Baldwin, 1906; Skinner, 1938; Piaget, 1952; Woodworth, 1958), it is not unreasonable to think that the organism's responses will be evoked and maintained by a great variety of environmental stimuli (both learned and unlearned), whether or not they have apparent survival value as defined by traditional drive conceptions. Given this property of the species, the behavioral researcher, unencumbered by imprecise drive notions, can concentrate on determining the conditions under which a child is differentially responsive to particular environmental stimuli functioning in their evocative, discriminative, or reinforcing roles.

Learned Drives

What seems to be learned behavior systems in humans also have been explained by motivational concepts termed secondary, acquired, or learned drives (e.g., dominance, nurturance, assurance). Many proposed secondary drives are merely terminological transformations of what were once considered unlearned "instincts" or "purposive actions." Other postulations are simply an attempt to be consistent with a particular theoretical approach or labeling convention. Further, motivational terms have been used to explain the operation of simple conditioned reinforcers, of intermittent reinforcement, and the persistence of behavior in the apparent absence of extrinsic reinforcement. Imitation-identification (Hindley, 1957; Bronfenbrenner, 1960; Kohlberg, 1963) and dependence-attachment (Sears, 1963; Schaffer and Emerson, 1964) are examples of pervasive behavior systems that also have been conceived in acquired-motivation terms. No attempt is made in these cases to identify the relevant discriminative and reinforcing stimuli that may be maintaining the behavior in the wider historical and environmental context. Thus, this pattern of usage has no more definitional rigor or explanatory power than the unlearned drive concepts earlier considered. In fact, it has led to a loss of precision in the specification of the functional relationships sought, the reasons for seeking them, and the theoretical language used to order these phenomena.

Privation and Deprivation as Environmental-Deficiency and Shift Conditions

Motivational terms also have been applied to cases where stimuli have been relatively unavailable during a child's earliest years, or those where there is a removal of stimuli that have been regularly provided to maintain much of the child's behaviors. The environment-deficiency conceptions termed "privation" and "deprivation" have occupied a central role in theoretical attempts to link early conditions of deficient stimulation (as antecedents) to aberrations in later child behavior patterns (as consequences) (e.g., Levy, 1937; Bowlby, 1940, 1951, 1953; Bakwin, 1942, 1949; Goldfarb, 1945a,

1945b, 1955; Spitz, 1946a, 1946b, 1949, 1954; Yarrow, 1961; Gewirtz, 1961a, 1961b, 1968a). An understanding of such phenomena could have implications for the Day Care of children from either privileged or disadvantaged homes. This is because the deficiency conceptions provide several meaningful bases for conceiving of children as disadvantaged, for understanding the behavior outcomes detected, and thus for suggesting appropriate procedures to (a) preclude the possibility of occurrence of such processes, and (b) reverse them when found. But equally important, environmental-deficiency conditions ("privation") and environmental-shift conditions ("deprivation") can illustrate how some important, but seemingly complex, common aberrant behavior patterns that often have been conceptualized inappropriately in motivational terms, can be ordered by the simple learning model emphasized in this chapter.

Commensurate with earlier functional analyses (Gewirtz, 1961a, 1961b), the term stimulus privation will be reserved for a paucity of all, or particular classes of, stimuli through long time spans--usually early in life at the very time available stimuli would support basic learnings. In some instances, abundant potential stimuli may be available but nonfunctional because of inappropriate contextual setting conditions or an inept mode of provision (e.g., noncontingent on behavior). Thus, if social events are not made discriminable for behavior, they will not acquire cue or reinforcer value, and privation of social stimuli will have occurred. A child developing under these conditions may become generally responsive to nonsocial discriminative and reinforcing stimuli but unresponsive to social events.

The term stimulus deprivation will be used to refer to gross shifts in the maintaining environment, both long-and short-term, which involve decreases in availability, or complete removal, of stimuli that have become functionally significant for key behavior systems of the child (for instance, those from stimulus-response chains that characterize routine interaction patterns with a significant figure(s)). As a result of such downward shifts in stimulus availability, there may be a severe decline in the rate of the behaviors those stimuli control. This may be effected by: a) reducing the accustomed level of stimulation; b) changing the quality of stimulation by changing its source; c) removing the contextual conditions that can enhance the efficacy of such key stimuli; and/or d) blocking instrumental responses to such stimuli by direct interference. Examples of such conditions include a child's separation from his principle caregiver or parent or that person's sudden and continuing rejection of the child.⁹

The deficiency-motivation conception. The assumed consequences of privation and deprivation conditions usually have been explained by a deficiency-motivation conception. Adherents of this conception have proposed that the short-term homeostatic drive model, generally used to order periodic requirements for appetitive stimuli (food and water), also can order long-term "hungers" or "needs" for such nonappetitive commodities as stimulation,

⁹ As a result of such situations, the child at first may exhibit behavior patterns not unlike those usually found in the beginning stages of experimental extinction, i.e., an initial increase in frequency of the response compared to the rate exhibited under reinforcement conditions, as well as irrelevant emotional responses which further disrupt the behavior pattern and preclude the learning of new adaptive responses. A conditioning analysis of key-stimulus deprivation appears to provide a plausible basis for understanding such resultant behavior patterns.

affection, and love. Thus, David Levy (1937) has coined the phrase "primary affect hunger," and Spitz (1949) has written of "emotionally-starved" children.

The long-term deficiency model generally emphasizes a "need for stimuli" which can build up through time and, when unrequited, result in aberrant behavior outcomes. Thus, if a child receives an inadequate supply of "essential" stimuli from his caregiving environment over a lengthy period, it is thought that systematic changes occur in some of his behaviors related to the deprived stimulus commodities. Moreover, the "needs" which build up may result in the child later exhibiting seemingly insatiable requirements for the earlier deficient stimulus commodities, as in extreme forms of dependence and attachment behaviors, or in total disinterest in those and in nonsocial stimuli, as in developmental arrest, apathy, depression, and/or "shallowness of affect."

The unwarranted application of the deficiency-motivation conception to what seem to be learning phenomena. However, the hunger-drive model has evolved to order, through hours or at most a very few days, an organism's recurring and readily reversible (satisfiable) requirements for indispensable appetitive stimuli. This short-term model implies no cumulating residual effects. Despite these limitations, the expanded long-term deficiency model is still used as a basis for providing children (social) experiences to remedy presumed long-term environmental inadequacies. Under this model, the solution for dealing with the assumed results of inadequate conditions is to provide the child a large number of events, without regard to their relationships with his behaviors. If this prescription were followed precisely, either the infrequent contingencies between responses and stimuli would minimally affect response acquisition, or responses would be reinforced by chance contingencies resulting in "superstitious" behavior.

In actuality it is unlikely that a caregiver (or therapist) will ignore entirely the child's behaviors when she/he provides stimuli. But without predetermined specification of the desired responses, and a consensus caregivers as to which responses should be reinforced, a number of behavioral outcomes are possible. If the stimuli intended to constitute "sufficient" attention and love are provided contingent upon the child's disruptive or attention-seeking behaviors, those responses will be strengthened, and the result may be an unfavorable response pattern that precludes the learning of more appropriate adaptive behaviors. If, on the other hand, the caregiver provides those stimuli contingent upon more socially-valued responses, such as responses typical of the child's age group, or those oriented toward autonomy and achievement, these responses will be strengthened and the outcome more favorable.

Ironically, both of these behavior shifts can be used by advocates of a deficiency-motivation model to index the inadequacy of the previous setting. An increased incidence of attention-seeking or disruptive emotional behaviors could be interpreted as proof of the child's "hunger" for those stimuli inadequately provided in his past, and of his requirement for even more stimulation to reverse the process. The opposite outcome, the relative increase in appropriate behaviors, could be interpreted as indicating that the new, more adequate environment has satisfied (satiated) the child's "hunger" for these stimuli, since he no longer appears to "need" as much attention and love and therefore appears more "secure."

Such interpretations ignore the simple conditioning principles of stimulus control over responses that can operate in the situations described above. The routine use of a deficiency-motivation model thus can discourage close attention to environmental stimuli, behaviors, and the learning mechanisms their contingent relationship represent. By focusing on what appear to be minimal conditions for behavioral development, neither the range nor the potential upper limit of development is considered. In contrast, a learning approach would view deprivation in terms of changed contingencies in the new setting relative to conditions of stimulus control existing prior to the removal of key stimulus classes. The outcomes of such environmental shifts would reflect the adjustment of the child's behavior rate to the changed conditions of stimulus provision in the new setting, as well as the new learnings brought about by these changes. The basic assumption of a learning analysis overlooked by proponents of a deficiency conception is that it is not sufficient to focus simply on which or how many stimuli are provided to the child. Rather, one must take account of the circumstances under which given stimuli are made available, and in particular, whether these stimuli are functional for the child's behaviors, i.e., enter into contingencies with them.¹⁰

Contextual Qualifiers of Stimulus Potency for Behavior: Motivational-Performance Concepts

The basic processes presented for the acquisition and elimination of responses can order a wide range of learning phenomena. However, the operation of these basic paradigms is typically qualified by the setting or context which provides a stimulus for behavior. These conditions can determine the momentary relevance of stimuli for behavior. Specifically, the effectiveness of a stimulus for controlling behavior on a particular occasion, by evoking, cueing, or reinforcing it, may be increased or decreased by manipulating the contextual conditions of stimulus provision. Such variables, often attributed gratuitously to "drives" or "states" of the organism at the time of stimulation, have been termed motivational or performance conditions to separate them from the conditions of learning.

My analysis here is based on the assumption that the contextual qualifiers under examination will modify stimulus power after the stimuli have acquired much or all of their value, and that those values are currently being maintained in the wider environmental context. The bases through which stimuli acquire their values for behavior are therefore of secondary interest in this section. (Some of these were discussed in earlier sections.) It is recognized, however, that contextual-performance operations can facilitate those acquisitions.

Concurrent and preceding contextual conditions. Contextual conditions that can make stimuli salient for behavior may be grouped in terms of their temporal relation to a stimulus being presented, i.e., the focal stimulus. These contextual qualifiers may operate concurrent with or preceding the presentation of the focal stimulus, and their effects may cumulate. The role of learning in establishing contextual qualifiers is not clearly

More complete analyses of privation and deprivation effects, and of their implications for attachment and (social-emotional) dependence patterns can be found in several of the author's papers (Gewirtz, 1961a, 1961b, 1968a, 1969a, 1969b, 1971b, 1971c).

understood. Some contextual determinants may be interpreted as the outcomes of learning; some appear not to have been established through learning at all; while others may be determined by longer-term experiential conditions that involve forms of learning still poorly defined.

Factors operating concurrent with the focal stimulus would include the background for a stimulus figure, a standard comparison stimulus, the source of reinforcing stimuli, and ecological factors that may facilitate or constrain responding. For instance, there is considerable evidence that various attributes of the person providing a stimulus, such as his gender, role or social status, could qualify the concurrent discriminative or reinforcing value of that stimulus for behavior. Thus, reinforcing stimuli dispensed by men have been found more effective in altering the behavior of girls than of boys, and the opposite effect has been found when women dispensed the reinforcers (e.g., Gewirtz, 1954; Gewirtz and Baer, 1958a, 1958b; Patterson, *et al.*, 1964). Similarly, the effectiveness of a verbal reinforcer for child behavior has been inversely related to how much the child liked the peer reinforcing agent (Hartup, 1964) and to the agent's sociometric popularity (Tiktin and Hartup, 1965). Such effects could be determined by the individual child's reinforcement history.

Deprivation and satiation for a stimulus provide an interesting illustration of how short-term context conditions can operate preceding stimulus presentation to qualify its effectiveness on a particular occasion. Traditionally, deprivation-satiation functions have been thought to hold only for organismic need and studied mainly with regard to food and water. The reinforcing effectiveness of these substances has been found to vary inversely with their preceding availability. However, in recent years, various studies have found deprivation-satiation functions for the reinforcing and discriminative power of nonappetitive stimuli, like visual, auditory, and tactile events (Glanzer, 1953, 1958; Butler, 1957; Jones, *et al.*, 1961; Fox, 1962; Jones, 1964; Odum, 1964). Comparable effects involving the evocative or discriminative power of stimuli often have been grouped under the headings of curiosity, manipulative, and investigatory behaviors, play, and response adaptation or habituation.

A series of experiments has illustrated how stimulus satiation and deprivation can determine the reinforcing value of a social stimulus (the word good, connoting approval) for five through eight year old children (Gewirtz and Baer, 1958a, 1958b; Gewirtz, 1967, 1969c; Landau and Gewirtz, 1967). The reinforcing power of that stimulus varied inversely with the number of its prior presentations to the child, and it varied directly with the length of recovery interval between satiation treatment and conditioning test. A brief period of social-isolation also increased the reinforcing power of good. These studies concluded that satiation and deprivation (recovery) for a social stimulus could produce opposite, seemingly additive effects like those for satiation and deprivation of appetitive stimuli. They also concluded that otherwise trivial events (e.g. meaningless sounds) could become potent stimuli for behavior, when the context is manipulated properly. Other qualifying contextual conditions that operate preceding the stimulus presentation include instructional sets, earlier experience with stimulus attributes, and the individual's learning history (such as his earlier experience with the reinforcing agency, whether sets established via learning procedures, and shifts from previous patterns of stimulus presentation).

Context and stimulus directionality. In addition to its effect on the discriminative and reinforcing power of a stimulus, there is evidence that context can determine the direction of a stimulus's reinforcing effect--whether it functions as a positive or a negative reinforcer, or remains neutral. That is, some stimuli may be positive reinforcers in one context and nonreinforcers or negative reinforcers in another. For example, a generally strong noxious stimulus was found to function as a positive reinforcer in a context where an individual had to respond and could choose between a response followed by that stimulus and one followed by an even more noxious stimulus (Stone and Hokanson, 1969). Moreover, the opportunity for an individual to respond can function as a positive reinforcer when made contingent upon another of his responses that characteristically occurs at a lower rate (Premack, 1959, 1962), and as a negative reinforcer when made contingent upon a response that characteristically occurs at a higher rate (Weisman and Premack, 1966). Thus, knowledge of the context may indicate the directional reinforcement value of an opportunity to emit particular responses, including which of a response pair will reinforce the other in a given situation.

Maintenance conditions as contexts. Insofar as the pattern (e.g., level) of an individual's long-term experience with a stimulus can affect the power of that stimulus for behaviors--even those related to basic organismic requirements--it is appropriate here to consider maintenance levels or reference standards. These maintenance patterns can be indexed by such distributional features as the number, variety, and range of the stimuli experienced. Thus, an individual may respond more readily to a stimulus level that is close to the average level previously experienced than to an extreme, infrequently experienced stimulus value. Or, he may respond in a manner that will maintain the previous (adaptation) level of stimulation, and avoid the highly infrequent ("incongruent") level. Moreover, it is possible that a stimulus will be most effective when the discrepancy between that stimulus and its maintenance-level standard is in the intermediate range (Hebb, 1949).

Perhaps the most notable example of a stimulus summarizing concept is Nelson's (1947, 1948, 1959, 1964) "adaptation level." Under a notion that all behavior is determined by internal stimulus standards or norms, Nelson has reported that the weighted geometric average of focal, background, and residual stimuli earlier experienced by the individual can function as a "frame of reference" (standard, context) for diverse stimulus-response systems to qualify the impact on behavior of a subsequently presented stimulus. As each new stimulus is presented, its characteristics are incorporated into the individual's pattern of experience, and the organisms' adaptation levels change accordingly.

Maintenance levels or reference standards also may serve to define the "familiar," as a base level for an individual's responding to "novel," "incongruent," or "strange" stimuli. Thus, Hebb (1946, 1949, 1966) has proposed that visual stimuli containing elements very incongruent with those an individual has experienced previously might evoke emotional behaviors leading to avoidance or uncoordinated excitement, whereas stimuli containing more congruent but still different elements might evoke curiosity and investigatory behaviors. For instance, chimpanzees typically displayed strong fear responses when presented with stimuli that were atypical in terms of previous maintenance contexts, e.g., the inert body of an

anesthetized chimpanzee or a chimpanzee skull with moving jaw (Hebb, 1966). But in human infants, an intermediate level of incongruence from values regularly experienced (as "schema") resulted in an increased duration of responses connoting attention (McCall and Kagan, 1967; Lewis and Goldberg, 1969).

Implications for Day Care. It would be unnecessary to consider the contextual factors of stimulus provision if repeated presentation of a stimulus were to lead consistently to the same response. However, such homogeneity is rare, particularly in social contexts. If, on a particular occasion, appropriate context conditions are not manipulated to make events relevant for an individual, they may not exert optimal, or even effective, stimulus control over his behavior. Many contextual conditions that can increase or decrease the power of stimuli provided to a child could be easily manipulated in Day Care settings to facilitate the occurrence and the learning of particular valued behaviors and the acquisition of discriminative control over them. Many of these heighteners of stimulus power represent potent incentives for "motivating" children's behavior. At the very least, caregivers and teachers should attempt to take such contextual factors into account because they qualify, attenuate, or even nullify, the effect of training procedures that could be implemented. An individual's pattern of previous experience also will determine stimulus effectiveness and therefore must be taken into consideration.

ON DEVELOPMENT

On Optimizing Development: Developmental Potential and Behavior Norms

In a functional analysis, the term "development" is an abstraction for systematic sequential changes in the particular S-R patterns that are of interest. Under this orientation, environmental conditions could foster or retard child behaviors, and their application is not limited by gross speculations such as innate "ability" ("potential"). In contrast to a stimulus-deficiency conception which emphasizes mere stimulus-availability or exposure independently of any contingent relationships with behavior a functional approach assumes that throughout a child's history stimulus conditions can be manipulated to produce diverse behavior outcomes, either rapidly or slowly relative to chronological-age or some other group norms. By focusing on events which have a functional relationship to behavior, namely discriminative and reinforcing stimuli, an instrumental-learning approach indicates various ways in which the environment can foster the child's changing capacities and thus maximize or optimize his rate of development in important behavior areas.

It has been demonstrated that by providing a young organism with experience designed to foster a particular outcome, it is possible to facilitate the acquisition of behavior systems which ordinarily characterize much older organisms. Thus, seven year old performance on a conceptual transfer task has been brought about in three year old children by subjecting them to a relatively-rapid dimension-highlighting training procedure which compressed the relevant experience ordinarily received between ages three and seven (Caron, 1968). Therefore, in the framework of this analysis, even our "advanced" children may be operating far below their full potential in specified behavior realms (Gewirtz, 1969b). The opposite effect also can occur: individuals may be provided with patterns of experience to retard

the acquisition of behavior systems, so that their behaviors would be like those characteristic of younger-aged children.

Typically, developmental age norms for various responses (e.g., those of Terman and Merrill, 1937; Casell and Amatruda, 1947; Wechsler, 1958; Uzgiris and Hunt, 1967; Bayley, 1969) have been collected in settings which were not designed to facilitate given behavior outcomes. Hence, many such norms are unlikely to reflect the higher levels of behavioral development possible with a focused learning approach. A further limitation of these norms is that they are typically collected in terms of chronological age which is in itself a questionable classification variable.

Limitations of Some Variables in Analyses of Development

Limitation of chronological-age variables. Traditionally, behavioral development has been catalogued in terms of chronological age because of its presumed convenience in indexing successive changes in both physical structures and behavior systems of the organism. However, age is a pure index only of the passage of time in the physical world and not of the variables directly involved in development—namely, the sequences of events experienced, the biological structures changed, or the resulting behavior systems. It is assumed here that the principles and functional relations characterizing behavior changes in early life are fundamentally similar to those in later life segments. By this analysis, age is an incidental (and possibly irrelevant) variable in behavioral development. Thus, a functional approach is concerned directly with the particular combinations and sequences of experiences that are actually provided over time by environmental agencies, and with how these sequences can be manipulated. In this frame, I have written of optimizing behavioral development, and have advocated a learning theory approach as being most efficient to that end (Gewirtz, 1969b). If there is any benefit in grouping children homogeneously by some criteria for Day Care, the position detailed here would imply grouping by considerations other than age—for instance, by homogeneous behavioral characteristics. A further, albeit related, stratification might be in terms of behavior systems that are to be fostered.

Limitation of demographic setting variables. It should be apparent from our analysis that conditions for wholesome child development are not limited to family environments that include "natural" parents. Any environment that effectively implements conditions consonant with an initial evocation of shaping and subsequent support of consequentially-valued behavior systems for the child is one which is fostering the development of that child. "Natural" intact families can be worse than some residential institutions or Day Care centers insofar as they do not facilitate in the child wholesome behavior outcomes, or else produce unwholesome ones. Moreover, institutions can be engineered to provide relatively wholesome environments for children, while many families that provide relatively poor caregiving environments are not readily changed. Thus, there is no necessary correlation between institutional or foster home residence and unwholesome behavior outcomes or between natural family membership and wholesome outcomes. Other group membership conditions, such as sibling-order status, birth group, and gender, are similarly crude independent variables and permit rather little leverage on the incidence of specific child-behavior outcome patterns (Gewirtz, 1969a).

Limitation of Critical and Sensitive Period Concepts

The concepts of critical and sensitive periods often have been invoked to justify age-related training or intervention. Critical period refers to time spans in the individual's early life during which his capacity to acquire certain behavior systems is assumed to be permanently lost if relevant experience is not provided. During a sensitive period it has been assumed that relatively large or rapidly occurring behavioral effects can be produced by less environmental stimulation than would be required to produce such effects at other time periods. These time spans are often specified imprecisely (e.g., "around three months") or broadly (e.g., "the last quarter of the first year," "during the second year of life"). However, an identified critical or sensitive period may reflect merely the failure of researchers to note exceptions to their observations, i.e., the appearance of the behavior outside the age limits within which it earlier appeared. Thus, such age-linked notions depend on the samples of individuals and conditions that happen to be surveyed, and may index merely sampling limitations.

More importantly, any age-defined concept is limited in utility to the extent that it ignores the underlying processes. Research must focus on process, which requires a detailed analysis of the sequential features of environment-organism (i.e., S-R) interaction. Once the processes are examined through which cumulative experience affects behavior systems, age-linked critical and sensitive periods lose even the modest precision their time limits might suggest. Specification of conditions which either prevent the acquisition of a behavior system or give it the appearance of irreversibility would further impeach the utility of a critical-period concept. For instance, if the acquisition of incompatible responses was the factor preventing or impeding the acquisition of a particular behavior system, then in principle, techniques could be devised to eliminate these incompatible responses from the individual's repertoire. The sensitive-period concept of a unique time span of heightened or maximum susceptibility to particular environmental influences is similarly of questionable utility. The individual is changing continuously due to experience and organismic factors, and therefore his capacity to learn will vary throughout his life span. Further, even within a narrow segment of the life span, the probability of learning at any given moment may vary greatly as a function of diverse contextual setting conditions (Gewirtz, 1967, 1969b).

RECAPITULATION

In the preceding pages, I have outlined a functional approach for conceptualizing the effect of environmental stimulation and social experience on the developing child's behaviors. It has been my assumption that, to be meaningful, the concept "environment" must be defined in terms of stimuli which affect behavior(s) and, at the same level of analysis, "behavior" must be defined in terms of its functional relations to controlling stimuli. Global, trait-like concepts, which only summarize through lengthy time spans the occurrence of their stimuli or responses, but not both facets of the S-R interchange, are at levels of analysis too inexact for the application of learning and performance ("motivation") principles.

The conditioning concepts emphasized thus order environmental operations which produce systematic (and usually reversible) changes in observable

behaviors. While assuming that the classical conditioning (Pavlovian) paradigm may operate concurrently, we have emphasized the instrumental-conditioning (operant) paradigm as effectively organizing a wide range of behavior functioning in Day Care settings. We have noted how the various functions of stimuli control behavior, i.e., by evoking, cueing and reinforcing it, how these stimulus roles are acquired, and how the momentary efficacy of stimuli is affected by performance (contextual-motivational factors). The various conditioning procedures outlined can foster socially-valued behavior systems and eliminate undesirable ones and can be used in Day Care situations to bring out the full potential of children from either privileged or underprivileged settings.

I also pointed out that diverse behaviors of the child, which have often been "explained" by several (i.e., cognitive, motivation, temperament, motivational (drive)), and other variables, including concepts may be efficiently accounted for by routine instrumental-learning principles. These behavior phenomena are functionally attributable to the operation of explicit, extrinsic stimulus controls and can be characterized more adequately in parsimonious statements of the co-relations involved. A functional learning approach requires emphasis upon the sequential details of environment-organism interaction, i.e., stimuli, responses, and their interchange. As such, it focuses upon the environmental conditions of which child behaviors can be acquired, maintained, extinguished, or otherwise modified, and thus upon the conditions by which the behavior development and adaptive learning of the young may be enhanced.

Section C

BEHAVIOR TECHNOLOGY APPLIED TO DAY CARE

In the usual settings where young children spend extensive time, much of the environmental impact on their behaviors will be adventitious, i.e., there is likely to be little or no systematic planning by the caregiving agencies. Therefore, the typical conditions provided for the child may produce a variety of behavior outcomes, some of which are often undesirable and perplexing to the caregivers. This need not be the case, since it may well be possible to manipulate systematically the conditions of the Day Care center so as to foster consensually-valued social, educational, or remedial behaviors in the child. The benefits of a strategy of "environmental intervention," moreover, should accrue not only to the child who may have behavior deficiencies or difficulties but also the Day Care worker who, having been provided systematic procedures with which to work, can gain the satisfaction that ensues from positive changes in the child's behaviors.

The previous sections have focused on the conceptual bases which underlie the belief that systematic manipulation of Day Care conditions can contribute significantly to fostering the growing child's development, particularly through the use of the learning principles discussed. The problem of implementing these procedures under the day-to-day conditions of a Day Care center remains to be detailed.

ECOLOGY AND THE FUNCTIONAL ENVIRONMENT

We noted earlier that the functional environment is comprised of objects

and events in a physical space that actually or potentially affect behavior. Upper limits to the functional environment are set by the available physical space and the materials and persons positioned in that space. We shall use the term "ecology" to stand for these limiting physical factors. It is apparent that the gross amount of space available will affect behavior. Thus, most closets do not provide sufficient space for free-play activities. Materials within that gross space also limit behavior. One cannot ride a bike or play with clay if a physical area is cramped or these objects are unavailable. As part of the physical and social environment people also facilitate certain child behaviors by providing the necessary cues and consequences through their various roles in relation to the child (peer, other child, adult caregiver). Finally, like physical barriers, people can set limits on the occurrence of various behavior systems. Thus, the design of Day Care settings must be concerned with the number and types of people, as well as with the materials, which the available physical space is to contain.

When people are considered part of the environment, questions immediately arise as to the age, number, and gender distributions of the children and caregivers who are to be present. Various age and sex ratios are likely to promote different patterns of interaction and thus varying responsive environments. The ratios of materials and persons to the available physical space also can be manipulated to foster constructive use of the props or desirable interaction patterns among persons. For instance, if the goal is to increase cooperative play among children, or the likelihood of a particular activity (e.g., building with blocks, thematic play), one might increase the number of children relative to the space. Further, the greater availability of active adults and/or older children in a child's environment provides a wider range of behaviors for the child to model his own behaviors after. In heterogeneous age groups of children, older children are more apt to exhibit nurturant responses to the youngest children. The older children could then be reinforced for matching. Well-intentioned, available adults may interfere with a child's exploration, so there may be times when it can be advantageous to insulate a child from a particular adult by removing one or the other from a room or by assigning that caregiver to a different task or role.

Thus, various undesirable behaviors may be prevented from occurring, and desirable behaviors may be facilitated and subsequently maintained by conditions created through the systematic manipulations of space, people, and props. The principles underlying the effects of such ecological manipulations are not well understood, but clearly cannot be ignored in the design of Day Care centers. Indeed, these engineering principles may play more important roles in Day Care than even staff training (Shure, 1963; Gewirtz, 1968b, 1969). Finally, the types of people and ratio of subgroups in a Day Care center must be viewed in light of the center's objectives. Characteristics of the population of children and families being served should determine staff selections as well as staffing patterns. It is axiomatic that Day Care agencies should feel free to rethink traditional Day Care procedures and staffing patterns in view of community characteristics and needs.

PROGRAMMING BEHAVIOR

Behavior modification procedures provide a great deal of program

flexibility, because they constitute a method for approximating any behavioral goal. The first step for Day Care planners in the application of behavior-modification procedures is the definition of consensually-valued behavior outcomes for their charges, so procedures for implementing the desired changes can be identified and alternative procedures considered. Secondly, effective reinforcers for each child's behaviors must be determined if the behaviors are to be modified. Then, the environmental contingencies between this external reinforcement and the relevant child behaviors can be manipulated such that desirable behaviors will be acquired and maintained and undesirable behaviors eliminated. With behavior goals specified and functional reinforcers determined, the range of operant-conditioning principles discussed here can be applied.

Specifying Behavior Goals

Goals to be specified in a Day Care center may vary for subgroups as well as for individuals within subgroups. A sample but not exhaustive list of generally valued behaviors would be: (1) bodily skills, gross and fine movements; (2) social responsiveness; (3) speech and language skill; (4) self-reliance; (5) freedom from fear or anxiety; (6) emotional independence; (7) perseverance; (8) ability to acquire information about the environment; and (9) tolerance for delay of reinforcement. Behavior goals will vary with a child's increasing repertoire, so that a goal for infants might be responsiveness to the human face, while for preschoolers it might be sitting quietly and completing a task efficiently. Moreover, a specific subgroup of children may have a behavioral deficit whose reversal could be incorporated into the list of goals. For example, certain rural children under age four may lack cooperative play skills. Fostering such skills then could become a desirable goal for them, in addition to the above sample list. The same logic could apply to an individual child who is deficient in cooperative skills relative to other members of his reference group.

Desired outcomes can be either relatively discrete behaviors, such as putting one's coat away upon arrival in the Day Care building, or more continuous interactive tasks, such as engaging in conversation upon meeting another individual. It is often necessary to break more complex behaviors into discrete units that are smaller and more manageable by the procedures outlined in this chapter. For instance, if the target behavior were putting shoes on and tying them without adult help, the child would have to learn a number of specific behaviors, such as discriminating left shoe from right, inserting the laces into the proper holes, evening up the laces, lacing the shoes to the top, and tying the laces in the proper sequence. Only after all these steps have been mastered would practice in the entire tying sequence begin.

Determining Effective Reinforcers

Once behavioral goals have been established, effective reinforcers for the control of those behaviors must be found for each child. The value of a particular reinforcing stimulus will vary from child to child, though certain classes of events operate as reinforcers for most children, e.g., money, toys, attention. Since the definition of a reinforcer is functional--a particular event which systematically changes response rate--the relationship between behavior and reinforcement must be observed to determine whether a particular event can operate as a reinforcer. When a stimulus initially

thought to be a reinforcer for a child's response is not functioning as one, its timing relation with the response should be checked and the contextual qualifiers manipulated. If these procedures do not increase reinforcer effectiveness, other stimuli must be sampled until an appropriate reinforcer is found. Thus, choosing an effective reinforcer is a process of trial and error for the caregiver and must be managed for each individual and response. Adult attention is a particularly effective reinforcer that should not be overlooked, as it is readily available and easily dispensed. Mere proximity of an adult, eye contact with him, or physical contact through a hug or pat, also can function as reinforcers. Since much of social interaction involves attention--whether verbal, visual, or physical--a wide range of social behaviors could be maintained easily on the basis of the reinforcing contingencies which occur frequently in social interaction.

Some Illustrative Day Care Program Applications

While Day Care is not yet an established part of our society's customs, exploratory attempts abound in the field. The content and methods of these programs vary widely, though they have focused increasingly on the more disadvantaged sectors of our population where the need for Day Care and/or remediation is thought to be the greatest. Some programs have provided high quality Day Care services within well-structured nursery-school-like settings, and an informal focus on content areas (e.g., Caldwell and Richmond, 1968). Others have attempted remediation through systematic exposure to specific content areas (Montessori, 1912; Bereiter and Engelmann, 1966; Perryman, *et al.*, 1966). A third course has been to foster specific behavioral skills through explicit learning procedures which might increase the likelihood of success in such future life settings as school.

Since the first two alternatives are better understood, we shall devote our attention here to a program in the last mentioned category--the Turner House Preschool run by Risley, Reynolds, and Hart in Kansas City, Kansas. This preschool has made direct use of learning-conditioning principles in its everyday operations. It thus stands as an important exemplar of the utility and viability of these principles for Day Care. In their review of literature on culturally-disadvantaged children, Risley and associates (in press) found few specifiable educational goals. Instead, they were faced with the almost certain prospect that such children would, years hence, become noncontributing citizens and possibly serious problems for society. Thus they decided to: 1) determine the skills children might need in order to learn what public schools are prepared to teach; and 2) develop ways of establishing those skills.

The Turner House Preschool resembles any other nursery or Day Care center in terms of physical layout and equipment. Its primary differences would be the three or more adults, equipped with clipboards and stop watches, who record specified ongoing behaviors. This preschool, by design, became a laboratory for developing and investigating child behaviors to discover what skills can be taught disadvantaged children in three hours per day for one school year. The children were chosen from the more extreme poverty levels or the more severely disrupted homes. The teachers were professionals in child development research and in utilizing reinforcement-learning principles to change behavior. The aim of the research was not to investigate the effectiveness of different reinforcers, but to find procedures capable

of accomplishing the goals specified. Since many studies of disadvantaged children had shown verbal behavior (language skills) to be of prime importance for school success, this project concentrated on establishing appropriate language behavior. The project descriptions which follow were completed during the first two years of the operation and provided a focus for subsequent programs not dealt with here.

The Turner House Preschool can be viewed as an environment which made specific behavioral demands. In particular, certain social or material reinforcers were made contingent on designated language behaviors. It was found that preschool materials universally available in Day Care settings were powerful positive reinforcers, and that ordinary preschool activities could serve as occasions for reinforcing target behaviors. Many seemingly complex behaviors were fostered in the Turner House Preschool, thus making it a model for the optimization of development possible in a systematic conditioning program.

Because some disadvantaged children exhibited such a low rate of talking that initial language skills could not be accurately assessed, it became necessary to increase the frequency of talking without regard for other aspects of language. For instance, social (teacher attention) and material (toys) reinforcers were made contingent on a four year old girl's spontaneous speech and answers to questions from the teacher, who attended to and interacted with the child only when she spoke. If the child asked for play materials, the teacher questioned her about intended use, and would give her the materials only after she had answered several questions. Under this procedure observers recorded that her spontaneous speech increased from 10% to 75% during the time she was observed in free-play periods (Reynolds and Risley, 1968).

Once talking behavior is established, children must learn to talk at appropriate times. Discriminative stimuli must be introduced to signal when talking is and is not permitted. In the Turner House Preschool, an activity most like that occurring in public school was chosen as the occasion to teach this discrimination. The children were seated around three tables working on pre-academic readiness tasks. Initially, snacks and social reinforcement dispensed by the teacher were made contingent on the children talking to each other as they worked. By mid-year, children were talking to each other an average of 30% of the time they spend working at the tables. Then, the contingency was reversed and teacher attention (comment on the work) and snacks were made contingent on working quietly. This reduced talking to an average of 21% of the time.

Having demonstrated control of talking through the use of positive reinforcement, a further discrimination was introduced. One table was designated as the talking table by placing on it a large blue box. While working at this table, children were reinforced for talking to each other. Children at the other two tables continued to be reinforced for working without talking. The children rotated tables so each child had to spend several days at the talking and nontalking tables. The use of a discriminative stimulus, a large blue box, coupled with differential reinforcement produced two rates of talking for the tables: an average of 30% of the time at the talking table compared with less than 10% of the time at the nontalking tables. Following this, the blue box was moved from table to table every few days, with the contingencies described above still in effect.

Talking at the blue-box table was maintained at an average rate of 30%, while talking at tables without the box remained at 1% to 2% of the time. Finally, the blue box was moved from table to table every 10 minutes during a 30-minute period. The children shifted quickly from talking to working silently; talking was maintained at average rates of 30% and less than 5%, respectively, under the two conditions.

Procedures similar to those described above were used to teach the children certain social skills. It was felt that by saying a pleasant "good morning" to the teacher's greeting the child might favorably predispose the teacher toward him--a factor which could be advantageous in public school. Each morning when the children arrived at school, the number replying to the teacher's greetings was recorded. The teachers then started reinforcing each child's greeting by praising him, patting him on the shoulder, or briefly talking to him when he said good morning. Using this procedure, the percentage of children saying "good morning" increased from 25% during a nonreinforced baseline condition to 75% with reinforcement. Despite the use of role playing techniques and direct instruction, the remaining 25% of the children did not respond to the teacher's greeting. A variety of reinforcement procedures were subsequently tried. Finally, an effective solution was found: M & M canides were dispensed and these proved to be potent reinforcers. With teachers initiating the greeting, contingent M & M's and social reinforcement increased the percentage of children responding to 100% within four days. Withdrawing teacher initiations while continuing M & M's and social reinforcement resulted in nearly all the children consistently saying good morning.

Equally simple acquisition paradigms can be used with forms of seemingly complex behaviors, such as use of adjective-noun combinations, remembering, and accuracy of reporting. In another attempt to build in public-school skills, a procedure was implemented, based on the "teach and test" modes, in which the teacher tells the children something which they are asked later to repeat. To establish a baseline frequency for remembering information, all children were seated before a board with four pictures on it, while the teacher pointed to each picture and labeled it with a difficult word or phrase. About two hours later, each child was brought individually to the board and asked to repeat the labels, while the teacher recorded his responses. Each picture set was shown on each of five consecutive days, after which four new pictures and labels were introduced. Performance was poor on the first nine sets of picture. None of the children accurately repeated the labels on the first day, and by the fifth day only an average of 5% of the pictures were correctly labeled. Starting with the tenth set of pictures, the children were allowed to choose a reinforcer (trinket, toy or candy) for each picture accurately labeled. After 14 more sets of pictures, an average of 35% of the pictures were correctly labeled after the fifth presentation. Some children consistently labeled 100% of the pictures correctly after the fifth presentation under reinforcement, and subsequently continued to learn new sets equally well, even without the use of reinforcers. Thus, using reinforcement principles, pre-school children can be trained systematically to remember and repeat information, and it seems that once such a skill is established it may be maintained by routine environmental contingencies.

The creation of an environment designed to foster specific behavior patterns is illustrated by a project devised to increase specific content

categories of spontaneous speech (Hart and Risley, 1968). After the children's speech was recorded during free-play periods for 15 minutes daily, it was found that the pre-school children used very few descriptive adjectives, especially adjective noun combinations. Adjectives of color were chosen as the content area to evaluate several procedures for increasing their usage. The children were given practice first in identifying colors and naming objects by their colors. To increase the likelihood of using color adjectives, the child practiced identifying available objects by both name and color. This routine training experience has no appreciable effect on the children's use of color noun combinations during free play; the rate-per-hour of color-noun combinations increased from an average of 0.2 to 0.4. A new procedure was put into effect whereby access to preschool materials during free play was made contingent on using color-noun combinations. Within 19 days, color-noun combinations increased to an average rate-per-hour of 14.2; an average of 5.1 were novel combinations never before recorded for that child. When the access-contingency was removed, the color noun rate decreased, but remained well above baseline at an average of 7.4 per-hour, including an average of 1.9 novel combinations. Thus, an entire setting was structured so that use of adjective-noun combinations was a necessary prerequisite for play activities. Children learned and continued to use new color adjectives even after reinforcement procedures were discontinued.

As a final illustration of the effectiveness of learning procedures in developing adaptive behavior systems, let us consider how the Turner House Preschool staff taught the children to report accurately their own behaviors (Risley and Hart, 1968). At the end of the school day, the children were gathered in a group and asked by the teachers, "What did you do that was good today?" The teacher smiled (social reinforcement) and passed the snack basket (material reinforcement) to each child after he answered, irrespective of what he said. The children's answers were recorded by an observer who also had recorded which materials each child had used during free play earlier in the day. Thus, while an average of about 6% of the group had played with blocks, less than half that number (2.3%) reported using blocks. Once a baseline correspondence between saying and doing was established the teachers continued to smile and nod to all children who answered the question, but instead passed the snack basket only to those who reported playing with blocks. Within two days, all of the children reported playing with blocks, though less than 10% actually had done so. The contingency then was changed, and the snack basket was passed only to those children who both played with blocks and reported doing so. The teacher would say, "Good for you, you really did." If the child had not played with blocks that day, she would say instead, "You really didn't though," and withheld the snack basket. Under this procedure, the percentage of children playing with blocks early in the day increased dramatically, and subsequently the percentage of those reporting this activity also increased, until nearly every child was playing with blocks and being reinforced for an accurate report at the day's end. This procedure was repeated for many different preschool materials and always yielded the same results. Consequently, as soon as the children's verbal report of an activity was reinforced, the nonverbal behavior, i.e., engaging in the activity, would increase

to match the report.

SHIFTS IN THE MAINTAINING ENVIRONMENT

Behavior is maintained by stimuli in the environment which evoke, cue, and reinforce responses. A child will bring to a new environment those behavior systems which were maintained by the stimuli in the environment from which he has come. The child's initial responses to stimuli in a new setting will be a function of the similarity between the new stimuli and those which controlled his behavior in the earlier context. The rate at which some of his responses (e.g., fear, avoidance) habituate to novel stimulus conditions (sometimes a slow process with disruptive effects when abundant startling and noxious stimuli are present) also will affect the child's initial behaviors in the new setting. Thus, when a child's environment shifts, it is to be expected that previously stable behavior patterns may be disrupted, unless there is a one-to-one correspondence between stimuli in old and new environments. The issue is important for Day Care which involves both a large-scale initial shift and routine smaller daily shifts from the family-home setting. Caregivers in the new setting should be made aware of the degree to which a child's behavior is dependent on particular environmental stimuli, and of the difficulties which can occur when maintaining conditions are changed abruptly.

In essence, a child's adjustment in a new environment will depend on: whether the new caregivers recognize the relevant discriminative and reinforcing stimuli for the child's behaviors and provide them effectively; and whether stimuli in the new setting acquire discriminative and reinforcing value to maintain the child's appropriate behaviors and enable the learning of new behavior patterns. If caregivers in the new setting are not cognizant of these factors and are not flexibly responsive to the child, they may fail to shape his more simple behaviors (that can result from the shift) into ones appropriate to the new setting. Thus the child may not acquire an acceptable behavior repertory there. Further, if the caregiver does not consider the child's present level of functioning, she may respond to him purely in terms of her expectations for children of that age group. A vicious cycle may result: the responses of the caregiver will not be appropriate to those of the child, and the child will lag further behind in his behavioral development. These conditions could result eventually in the child's being labeled "unteachable." Another possible outcome is that non-reinforcement of formerly reinforced responses may lead to emotional or other maladaptive behaviors such as tantrums. If these latter responses are reinforced by the caregiver's attention, they may increase in frequency in the new setting. Because they may be incompatible with new adaptive learning, another vicious cycle then could be set in motion which might result in the child's being labeled "untrainable," but this time due to "emotional disturbance."¹¹

¹¹ A survey of adaptations to new environments, and conditions for the establishment of substitute behavior repertoires and attachments to new object persons, can be found in Gewirtz (1961).

Shifts to Day Care Settings

When the parent that a child is having difficulty adjusting to a Day Care setting which he has newly entered, a variety of tactics may be used. One possibility is to let his fears or other emotional responses (crying, tantrum behaviors) habituate in the new environment by not responding to them. With sufficient exposure to the new setting, these behaviors should subside. Alternatively, reinforce some can be applied to these behaviors, such that the child's response with emotional behavior is that of a "no". These would probably include responses in the form of a positive interaction with peers and caregivers, and thus could establish the behavior of these responses as discriminative and reinforcing stimuli for the child's response. This could provide the basis for the "attachment" or "attachment" patterns between the child and his caregivers. Another possibility, often used when children first enter nursery school, would be to have the child's mother initially participate and actively in the new setting, and then gradually decrease her presence, by fading-out the child's mother response provider, their social conditions are increasingly transferred to conditions of the caregiver(s) and peers and to conditions in the present situation. This procedure might seem to require a staff skilled in the application of instrumental conditioning techniques to insure that the child's behavior is not becoming discriminative and/or emotional). However, in actuality, caregivers with wide-ranging qualifications have seemed able to manage this process.

Concurrent Multiple Environments

A special case of changes in stimulus control involves independent but sometimes overlapping environmental settings that differ in their discriminative and reinforcing stimulus conditions for subsets of the child's behavior, as in "multiple mothering." Each caregiver provides a different setting for the child, as defined by the unique discriminative and reinforcing stimuli she presents and the responses she considers appropriate. Difficulties may arise initially when a certain response to a stimulus is considered appropriate by one caregiver but inappropriate by another. However, the child readily learns to discriminate between the caregivers and caregiving roles which provide the functionally different environments. These issues are important for the child in a residential institution, nursery school, or day care center, who is concurrently and/or sequentially in the care of several persons. They are relevant also in understanding the child's behavior jointly by several persons in a household (e.g., parent, older sibling, grandparents, or maid).

I have suggested elsewhere (Gewirtz, 1968b) that infants in the care of busy or ambivalent caregivers, as in some institutional and family settings, might be subjected to a conditioning program to strengthen those responses in their repertoires (e.g., eye contact; reaching toward, smiles, selected vocal responses) that are likely to function as potent reinforcers for the behaviors of caregivers. In this way, such infants would be in a position to "compete" more effectively for the caregiver's limited attention, and a fertile basis could be established

to facilitate the mutual acquisitions of constructive interaction patterns between child and caregiver.

BEHAVIOR TECHNOLOGY AND THE CULTURAL MILIEU

Limitations of Some Romantic Concepts for Analyses of Environmental Impact on Child Behavior

Such terms as "satisfaction," "joy," "happiness," or "love" are used and valued in everyday discourse. But what is their meaning? Can they effectively describe behavior outcomes in child development? There are no universal definitions nor consensually defined indices of these idealized terms. They tend to be highly abstract and far removed from the analytic level used to describe a child's behaviors, and thus are replete with "surplus" meaning. Hence, they are used variably even in professional work, and often lack the precision required for empirical analyses. Similar criticisms apply to terms like "warm" and "loving" which are used occasionally to label the conditions of stimulation provided to children by caregivers and parents. Further, in approaching and defining new problem areas, even less abstract and less value-laden terms for responses, such as "smiling," "laughter" or "vocalization," may not be sufficiently detailed to permit a differentiated analysis of behavior. For instance, there are undoubtedly many different aspects of crying or smiling that can be meaningfully isolated from response systems previously considered homogeneous (Gewirtz, 1965).

It is important to consider the possibility that "expressive" behaviors (e.g., smiles, laughter) are conditioned early in a child's development. Thus, the expressive value of the smile, that to some extent a child's "satisfaction" or "joy" in life, may well be a function of earlier conditioning opportunities to which he was exposed. If the discriminable appearance of a face--the conditioned stimulus--is followed systematically by activities such as being lifted or tickled--unconditioned stimuli which produce smiling and/or laughter--subsequent appearances of the face may come to evoke the smile response (classical conditioning). The appearances of the face also may come to evoke smiles, if smiles to the face have been followed by reinforcing consequences (instrumental conditioning). By similar procedures, other expressive child behaviors likewise may become conditioned in early life. Thus, the frequent occurrence of these expressive behaviors in a particular environmental setting may reflect only the fact that sufficient functional stimuli have been provided for these responses to come under conditioned-stimulus control. For approaches using such responses as indices of an idealized environmental "wholesomeness," the evaluation of a child-rearing setting may involve precisely the same considerations emphasized in the present operational analysis which assigns no special value to responses and finds no utility in romantic terms: provision of stimuli in effective timing relationships with socially-valued behaviors (like smiling) can constitute favorable conditioning opportunities (whatever the implications for "happiness" or environmental "wholesomeness").

On Self-Fulfilling Prophecies

The conclusions drawn by parents or caregivers about individual children who have had deficient stimulation and reinforcement histories (e.g., brought about by neglect or incompetence) give rise to a frequent problem. When deficient histories and their behavioral outcomes have been grouped by certain gross criteria, children are often labeled by terms like "culturally-deprived," "disadvantaged," or "high risk." Thus, from what are inferred to be behavior limitations in the children--as indicated by background information or diagnostic procedures--the caregivers may conclude that the children have low potential, or are "retarded" or "backward." What remains unrecognized is that the children's "backward" behavior patterns are often the predictable result of adverse reinforcement histories due to a paucity of stimuli during their early formative experience (we have termed this privation). Alternatively, the patterns may involve only the consistent absence of coordination between some stimulus classes provided (which might otherwise have been ample in number and type) and some child response classes (Gewirtz, 1961, 1968a, 1968b). Thus, children from privileged environments also may be "disadvantaged," insofar as they are operating far below their "potentials," whether their behaviors appear below or above the norms for their age groups.

The process by which caregivers define their charges as having low or limited "potential" for development may become a self-fulfilling prophecy. Caregivers may continue to offer a restricted pattern of stimulation to these children, on the assumption that backward children could not benefit from stimulation. Alternatively, as Bijou (1963, 1967) has pointed out, under the humane rationale that such a deficient child "needs" more than the usual amount of attention because he is "handicapped," parents and/or caregivers may differentially reinforce the child's dependent behaviors and systematically discourage (through extinction or even punishment) his independent activities. Thus, they preclude the acquisition of effective, resourceful, and mature behavior patterns by their charge, while insuring that he will remain helpless and infantile. Clearly, on an individual or group basis, this type of caregiving process quickly vindicates itself by its outcomes: these children, who otherwise might have functioned rather well, come to depend on the stifling "help" that has been imposed by their caregivers (Gewirtz and Etzel, 1967). Thus, often due to the biases of their well-intentioned parents or caregivers, rather than their presumed or actual afflictions, some so-called "low potential" children develop in a stilted way, passive in environments which could foster active responsive children.

TLC as Contingent Caretaking

Caregivers can dispense powerful reinforcers through their attention. They can foster socially valued behavior patterns by determining ahead of time what child behaviors they will reinforce and by responding in some way (i.e., providing their attention) upon the occurrence of these behaviors. The caregiver may provide attention selectively to desired responses while withholding attention from undesired responses. This procedure has been termed contingent caretaking (Gewirtz and Etzel, 1967) to indicate the contingent relationship between attention given and behaviors fostered. Contingent caretaking helps preclude those child-rearing paradoxes in which caregivers'

actions produce undesired behaviors or weaken desired behaviors of the child. This condition arises frequently for both mothers and surrogate caregivers, despite the best of intentions. Parents may make a great deal of fuss over their young child saying a word they consider "naughty." However, because parental attention was given contingent on an undesired behavior, the child subsequently might repeat this word in public to his parents' embarrassment. Under contingent caretaking only approved language and other target behaviors would receive attention and be maintained, so that undesired responses would be eliminated.

Thus contingent caretaking can produce two desirable outcomes simultaneously. First, the child can acquire a variety of socially-valued behavior patterns. Second, parents and caregivers can experience great satisfaction from their active roles in evoking and reinforcing desirable child behavior with their "tender loving care" (TLC) and "attention." It is our observation that most caregivers are warm and loving people. What they need are role-definitions, like those represented by the conception of contingent care, to facilitate the translation of parental concern and love into effective positive reinforcement for various desirable behaviors of the child.

STAFF SELECTION AND TRAINING

Staff training for Day Care is of prime importance because one cannot assume that caregivers have a working knowledge of the behavior principles described by this author. Because those principles must be applied consistently to have the desired effect, cohesive plans for caregiver instruction are needed to systematize a Day Care center's program and to insure continuity of care for the children regardless of which staff persons are involved. One advantage of functional behaviorism is the ease with which its principles can be communicated to adults of all educational levels. The principles are relatively simple and have a great deal of "face validity." Some investigators have demonstrated that conditioning techniques for controlling disruptive classroom behavior and for increasing study rates can be taught to inexperienced first-year teachers unfamiliar with learning theory principles (Hall, *et al.*, 1968). Further, in a preschool setting, poverty-level mothers were trained to execute a behavioral contingency program designed to decrease the frequent child behavior of switching from one activity area to another (Jacobson, *et al.*, 1969). The mothers manipulated a response contingency which required the children to complete some task before switching to another area and thus effectively controlled the amount of switching behavior.

Staff training in the conditioning approach would require both oral and written sessions and practice in applying the principles in actual life settings. Emphasis at first would be on the definition of specific target responses, the recording of base rates, the application of reinforcement principles to change the rates, and the charting and evaluation of the resultant changes. The staff then might be led to a consideration of building new behavior systems through shaping and to improving the effectiveness of potential reinforcing stimuli by manipulating contextual qualifying conditions. Successful completion of this part of the course would demonstrate control by staff members of both instrumental-conditioning techniques and the target behaviors. A number of manuals and programmed texts designed to acquaint less sophisticated readers

with these methods have appeared recently (Patterson and Gullion, 1968; Herwee, *et al.*, 1969; Becker, *et al.*, 1969; Tharp and Wetzel, 1969). These materials are designed to help parents and teachers increase their influence over child behaviors through techniques that are entirely nonpunitive, in cases where punishment has been used almost routinely.

On the basis of such considerations, it appears that staff for Day Care installations can be selected flexibly in terms of a wide range of alternative criteria. While some professional direction for an entire center would be required, other staff members only need to be trained in conditioning techniques and be otherwise competent in handling children. If the staff were not aware already of the powerful learning methodology outlined in this chapter, it would be important that they at least be open to such ideas and receptive to the methodology. Though specific academic degrees, personal maturity, and the like often would be useful, these would not be critical in predicting the desired caregiver qualities.

ON ASSESSING THE BEHAVIORAL OUTCOMES OF DAY CARE PROGRAMS

With the implementation of any new training or treatment program, the question arises of how to assess the results. The answer to this question depends in great part on the aims of the program. In the past, child center curricula have tended to divide between two types of goals: (1) the training of specific, discrete behaviors (e.g., counting, letter identification, color naming); and (2) the facilitation of global behavior traits (e.g., "intelligence," "creativity," "independence"). Each of these aims involves special assessment problems. With regard to discrete behaviors, one may be interested not only in the attainment of each skill in its narrowest sense, but in the extent to which training has "generalized" to new contexts, materials, or related behaviors (e.g., from counting blocks to counting people or from counting to naming). In the case of general traits, one is faced with the choice of measuring the overall trait or the specific behaviors subsumed under it. Also bearing consideration is the question of whether the trait concept itself, as an abstraction of behavior from many different discriminative contexts, is entirely valid. In the present section we shall consider these and related issues, beginning first with the problem of assessing global behaviors.

In a very important sense, global attributes can be measured only in terms of specific discrete behaviors, for the former can have little meaning without the identification of the specific responses subsumed under those global headings. The behavioral approach outlined here would require specifications of the responses to be trained and the discriminative contexts in which they are to be exhibited. This in turn would determine what is to be tested and in what stimulus context, and how the testing is to be done. In contrast, global assessment often represents a "buckshot" approach which attempts to sample response classes likely to be emitted by a child in diverse settings; yet it fails to specify what the responses are and takes little account of stimulus contexts in which the responses are differentially controlled. A functional behavioral approach, therefore, would question the potential utility and validity of assessment techniques designed to measure global attributes, since the latter usually are not differentiated sufficiently and, thus, are only minimally useful. This is particularly true if they are used to assess the outcomes of focused programs designed to

foster specific behavior systems, and no explicit logic relates what is tested to what was trained.

Conventional psychometric testing procedures do not always employ items to which each child has been exposed. Often, the rationale for the inclusion of a particular test item is based on the contribution an item will make to the "construct" or "predictive" validity of the test, but with little regard for the probability that the item has occurred in the history of each subject for whom the test is intended. The justification for this procedure often invokes the concept of "generalization" or "induction" from specific behavior systems which some consider an important facet of program evaluation. In terms of a learning conception of conditional responding, inductive generalization would derive from common elements in the conditional stimuli, in the comparison stimuli which contain the discriminative stimulus, in the relationships among them, or even in the broader contexts in which comparison and conditional stimulus classes appear. Thus, one may be interested in assessing whether the children can demonstrate responses slightly different from those involved in the original learning situation, and whether learned responses can occur in the presence of discriminative stimuli which vary from the training stimuli in the Day Care situation or are embedded in larger stimulus complexes. For example, it may be relevant to determine whether, having been taught to copy a square, a child can copy a triangle; or whether, having learned to identify a square, a child can identify (discriminate) it when it is embedded between two triangles. To this extent, one can justify the use of "test" items which involve discriminative stimuli and responses different from those emphasized in the Day Care program.

It must be noted, however, that in order to assure a meaningful testing situation, the discriminative and reinforcing stimuli as well as the contextual conditions, both before and during testing, must be compatible or continuous with the original training situation. However, in the usual interim period between training and psychometric testing, the behavior systems fostered in training may not be supported by the environment, or they may even be negated. Depending upon the length of this intervening period and the stimuli to which the child is exposed, the behaviors fostered under the training situation may be extinguished, either by the removal of key stimuli functional for the fostered behaviors or by the reinforcement of incompatible responses. It is seldom realized that such interpolated activities can interfere with behaviors specifically fostered during training. However, as noted in our discussion of environmental shifts a learning analysis focused upon behavior and its maintaining conditions would enable such a prediction. These factors, often overlooked by traditional assessment approaches, can affect test results and yet not reflect inadequacies in training procedures.

There also may be several potential disadvantages in the typical assessment situation itself. The testing procedures commonly employed to evaluate behavior systems almost routinely change the context, and often the definition, of the behaviors that the training procedures have attempted to foster. Often what is tested is remote from what was trained: a child may have learned to count verbally, but be tested on written number identification. Further, the child's initial behaviors (often emotional) to the perhaps unfamiliar tester and the testing situation, and his general social apprehension, may not have habituated before the testing begins. These

attenuating factors can be amplified by an assessment procedure which uses only a single test occasion, as opposed to frequent or continuous behavior monitoring.

Under the behavioral model, training and testing are typically concurrent, interdependent processes. It is by continuous or repeated monitoring of target behavior change during application of a reinforcement-learning operation that the effectiveness of a training procedure is assessed. For example, in response shaping, the appropriateness of the approximating steps chosen and the reinforcement provided can be determined by the amount of behavior change under that procedure. After each provision of reinforcement, the child's behavior is observed to determine whether it is closer to the target behavior than before. The target response and not a hypothetical underlying entity is of primary interest, and, through continuous monitoring, change in the incidence (and other attributes) of that specified behavior can be identified. This approach has the advantages of: a) monitoring the rate of attaining various performance levels; b) giving immediate feedback on the effectiveness of the training procedures; and, c) emphasizing a performance criterion rather than a time limit or number of trials to determine the length of training for any particular behavior.

Perhaps the best, and most familiar, example of the continuous interaction between training and testing is programmed instruction. The child reads a small amount of material and then is required to make a response which is immediately compared with the appropriate answer. The reading material constitutes specific training in a subject area and the response comparison constitutes the test of this newly acquired knowledge. The test monitors the adequacy of the training and thus the behavior change produced by systematically-paced material. Results of the test automatically allow the child either to: (1) continue to the next block because his answers were correct; (2) correct his answers and then progress to the subsequent block; or, (3) return to passages read earlier to bring his behavior up to criterion. Training and testing are an integral part of programmed instruction units and one aspect cannot proceed without the other. In like manner, if the adequacy of Day Care settings in producing desired behavior changes is to be assessed, training and testing procedures must be built in as complementary processes.

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PART III

ADULT INVOLVEMENT

CHAPTER 8

ADULT-CHILD INTERACTION AND PERSONALIZED DAY CARE

E. Kuno Beller

The focus of the present chapter is on caregiving and the adult-child interaction in group care, particularly Day Care for infants and pre-school children. The many factors contributing to the increasing need for Day Care in our society are noted elsewhere in this volume. Thus, I shall not reiterate the developments which have enhanced the need for increasing professionalization of infant care and early education. However, it is worthy of note that the superiority of the natural surrounding of a home has remained an essentially unquestioned assumption in experimental Day Care centers which were formed for the explicit purpose of demonstrating that infants could spend part of the time away from home in group care without faring worse than infants raised entirely at home. These pioneer undertakings (see e.g., Caldwell, 1964; Robinson, 1968; Kiester, 1970) which have contributed to the professionalization of infant care aspired to demonstrate approximation rather than superiority to home care of infants. This was done in spite of the fact that it had become accepted knowledge that certain aspects of the home and of maternal functioning could have adverse effects on the development of the infant.

A second contribution to the professionalization of infant care has come from workers such as Gordon (1969) and Schaefer (1969) who have devised strategies to enhance the adult-child interaction within, rather than outside, the home. Under these programs, mothers are instructed by trained workers in the use of procedures designed to improve the cognitive and social development of their children.

While research in child development and experimental programs of infant care and early education have paved the way, the decisive impetus for the professionalization of infant and child care has come about because of radical social changes in our society, particularly those related to the political emancipation of women and the sharply increased participation of women in industrial production. In addition, large segments of the population have become increasingly sophisticated and interested in matters relating to child care. Professional expertise is avidly sought by many parents who rear their children in their own homes and is, of course, urgently needed by those who must provide care for their children outside the home.

With increased social need and acceptance of such professionalization, it is imperative that we focus on the major dimensions of Day Care which will be most crucial to healthy child development. One of the most important of these aspects is the adult-child interaction. In the following pages I shall discuss widely accepted concepts and practices related to this

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interactional process and then examine existing research evidence. The sequence of the discussion will deal first with need for personalized Day Care for children under three -- an argument which is supported in the subsequent section on: effects of early developmental changes as a consequence of adult-infant interaction; essential routines, which cover the adult role as nurturer and socializer in relation to feeding, sleep, and toilet training; socialization in relation to general discipline and the handling of aggressive behaviors; dependency and the fostering of trust; independence, achievement striving, and self-esteem; and, cognitive development. The chapter will end with a proposed conceptualization of the caregiver's role in her interaction with children reared in group settings.

PERSONALIZED DAY CARE FOR CHILDREN UNDER THREE

The infant needs personalized care, which means that his specific needs must be attended to when he manifests them. There is no one "technique" which will ensure personalized care. Schedules must be adapted to the individual child.

Personalized care also means that the infant needs a stable adult who functions as the main caregiver, one with whom he can form a close and secure relationship. Such a relationship is very important for the child's development of trust, curiosity, experimentation and independence. Consistent personalized care by a stable person enables the infant to develop trust in others and in himself; it allows him to explore and gain mastery over his environment, and to gradually regulate his own behavior through inner controls. Impersonal and inconsistent care results in the infant's being dominated by anxiety and impulses from within and leaves him at the mercy of uncertain and fluctuating pressures from outside.

Because personalized care entails response to the infant's specific needs, it is tailored to developmental changes in the growing infant. Thus, a prerequisite for personalized infant Day Care is a knowledge of essential developmental changes during the early years of life. Such knowledge, however, cannot be utilized for optimal child development simply by creating certain caregiving techniques. While many techniques may be useful -- and necessary -- flexibility must be maintained if care is to be personalized. Further, such techniques must be distinguished from those unplanned components of the caregiver's role which are here referred to as the caregiver's "style." The latter is dependent upon the personality traits and attitudes of the caregiver which, obviously, have great bearing upon whether or not the child will be provided the close and secure relationship which is so important to his development. This distinction between "style" and "technique" will be referred to several times throughout this chapter and elaborated upon in the concluding section.

EFFECTS OF EARLY DEVELOPMENTAL CHANGES

The behavior of the newborn infant changes dramatically within a short period of time. During the first few weeks, the infant's self-propelled

actions seem primarily related to biological needs. Then, signs of social behavior begin to appear. For example, by the age of two or three months, the infant smiles at another person. He follows a person with his eyes, vocalizes when spoken to, and adjusts his body when picked up and held (Provence, 1967). By the third and fourth month, the infant smiles or responds with increased excitement when somebody sings to him speaks to him, touches him or smiles at him. Two other events occur around the fourth month which are significant for the adult-child interaction. First, the infant begins to express clear displeasure when the mothering person moves away. Secondly, the infant begins to anticipate specific acts of the adult which are carried out to satisfy his needs. For example, he responds to the bottle with increased excitement and some ability to wait, thus giving evidence of the onset of memory. This coincides with the infant's transition from a reaction to the total experience of care to one involving a particular caregiver. Moreover, the infant who initially responded to the caregiver only in a state of distress or need now begins to respond to the caregiver even when he is not in a state of distress (A. Freud, 1965).

Against a background of personalized care by a stable person, the infant develops various ways of expressing many feelings, such as fear, pleasure, anger, protest and so forth. Whereas earlier the infant responded with expectancy to outer stimuli such as the bottle, he begins, around nine or ten months, to manifest expectancy to his own response. For example, when he calls his caregiver with a simple vocal sound, he wants to hear whether she will respond. This act contains the further developments which are important for the relationship between adult and infant: 1) the infant has developed still better memory, that is, he can invoke another person's image in their absence; and 2) he can take the initiative in relating to the other person, e.g., he can deliberately contact the caregiver and avoid or reject contact with another person.

These changes coincide with the development of the infant's ability to assert and defend himself. The infant can motorically express assertion by pulling or pushing and he can defend himself by either moving away, pushing away, or by shaking his head vigorously, indicating "no."

Sensitivity to separation begins during the second part of the first year. When the caregiver to whom the infant is strongly attached plans to employ substitute caretakers -- as in Day Care -- measures should be taken to lessen the child's anxiety. It will be helpful if the substitute is introduced to the child by the familiar caregiver and also given maximum information about the child. Absence of any separation anxiety, and particularly indiscriminate friendliness, is probably a danger sign rather than an indication of healthy emotional development. Toward the end of the first year, the infant develops attachments to special objects, e.g., a favored blanket or stuffed animal. Winnicott (1967) has called these as "transitional objects" which serve as a substitute for the mothering adult. The infant does not have to separate from this substitute object. It is his own and he is reluctant to let it out of sight.

During the second year of life, the infant continues to need a stable caregiver who reacts to him consistently. Consistency, in this context, takes on two meanings. One is the predictability of the caregiver's

response over time. A second meaning, as delineated by Pavenstadt (1968) refers to "an inner consistency, a graduation of the demands made on the child in keeping with his development and the careful timing and dosage of frustrations."

During the second year, the infant's relationship to the caregiver becomes more differentiated. The infant is no longer concerned only with the presence of the caregiver but wants also to please her and win her approval. However, as the infant's attachment gets stronger and his demands for approval become clearer, Provenca (1967) notes that he also becomes more determined in his refusals since he is able to do things by himself. The caregiver uses the child's needs for praise to make him conform to demands for socialization. The infant obliges but he also begins to say "no" to practically everything, even when he gives in to the demand. This "no" is an early assertion of his own identity and independence; however, his defined posture and transgressions have an additional purpose. This purpose is betrayed by rapid mood changes between defiance and demands for attention and approval. The infant tests the endurance of the caregiver and the limits she sets. It is as if he is trying to make sure that the caregiver can set limits but remain available as a source of security. He learns that his anger and aggression are not as destructive as he might fear. This is an important point for the caregiver to keep in mind because rarely is an adult as frightened by the toddler's defiant anger and aggression as is the toddler himself.

The toddler has reason to be insecure about the consequences of his physical behavior. He has learned to walk, run and climb. Together with the enjoyment and pleasure he derives from these activities, he also experiences some painful falls, cuts and bruises. Moreover, adults are forever warning him to beware of danger. In order to feel secure, to venture into feats of climbing, running, pushing, pulling and exertion, the infant must be assured of the protection of his body which can come from a trustworthy caregiver. As Anna Freud points out (1965), the child leaves the protection of his body to his mother while he is in her arms. If attitudes of indifference during early childhood. A child who is very early concerned with his bodily safety may well be a child who has experienced poor mothering.

A secure relationship with a protective caregiver is equally important for the development of playfulness. The caregiver functions as a playmate, and provides a safe environment in which a child can play by himself. Against this background, the toddler can venture into play and exploration of the environment.

Given the opportunity, the infant can produce a good deal of variety out of his own resources. However, the caregiver might contribute to the variety of the toddler's experience by taking him on shopping tours and visits. This is especially important for toddlers attending all day Day Care centers. This allows the toddler to see the caregiver in a variety of roles and functions so that the caregiver becomes a more interesting and "real" person to emulate.

The infant's explorations and his testing of his powers contribute to his growing sense of self. During the second year the child's

self-concept can be further developed through the use of language. As Pavenstadt (1968) points out, the caregiver may make appreciative comments about his looks, his motor skills, and his accomplishments. The hide-and-seek game affords a very natural opportunity for the adult to express joy when he actively looks for the child and finds him. Teasing the child should be avoided.

A child's sense of self extends beyond his body. It is important for a child in a Day Care center to have a place of his own where he can put his belongings, especially his precious possessions, since they symbolize part of himself. They can help him to maintain a continuity between home and Day Care center.

Routine activities can be used for further developing the infant's sense of self. The caregiver may talk about the food she is giving to the child, and she may give the toddler a running account of what he is doing while he is eating or what he is eating. She may comment about his clothes, his looks, etc. All of this will make the infant aware that someone is paying attention to him and to what he is doing. It may also help the infant to become aware of the consequences of his actions.

ESSENTIAL ROUTINES

Feeding

In a Day Care center, breakfast may be very important because infants of working mothers often do not experience an organized interaction with the mother during breakfast. Starting the day at the center with a warm meal or drink will allow the infant to make the transitions, both from sleep to wakefulness and from home to Day Care, personal and organized experiences.

The major emphasis on feeding infants in group situations in this country seems to be a concern with mothering and the type of adult-child interaction that will foster in the infant feelings of security and trust in others (Keister, 1970). Although the use of the feeding situation as a learning experience has been suggested (Gilliland, 1966; Terman, 1967), such learning is of a casual and informal nature. The same emphasis is reflected by Prescott *et al.*, (1967) who describe teachers in Day Care centers who use lunch time as an opportunity for informal teaching and for encouraging children to share their experiences. Other investigators suggest that the period before and after lunch can also be used for enjoyable experiences. Cleaning up before lunch could be followed by activities such as songs, stories, or a quiet conversation with a teacher in a cozy corner instead of the usual wait at the table. Similarly, eating might be concluded with pleasant activities or free play rather than the present emphasis on practicing patience and skills by waiting until everyone is finished and then insisting on routine cleaning up.

Anna Freud (1965) suggests that eating is equated with mothering by the child for some time after infancy; as this fades, irrational attitudes and fantasies associated with eating continue. It is not until the end of the preschool years that the child ceases to be concerned with its

symbolic meaning and develops a rational attitude towards eating and enjoying his food. These considerations are not reflected in Day Care settings where teachers make lunch a formal period focused on physical needs and rules of social living. The same applies to centers that use lunch as a time for displaying competence and hospitality. Here, children are busy waiting on tables, cleaning their plates and wiping tables after lunch.

Thus, it is evident that the educational focus and emotional climate of the feeding situation in early childhood varies widely within our own culture. These differences probably have effects on children's personality development. Unfortunately, there is almost no research evidence of the consequences of these different approaches to eating, although it is certainly needed. However, some suggestive evidence comes from research on different feeding practices of parents.

Research

Heinstein (1963) studied relationships between the nursing experience and subsequent psychological adjustment. He found no relationship between breast feeding versus bottle feeding as such; however, the length of nursing and warmth of mother were significantly related to subsequent adjustment. Children who experienced prolonged nursing by a cold mother were most maladjusted. The same outcome was found in girls who were breastfed by a cold mother.

Similar evidence comes from a study by Sears, Maccoby and Levin (1957). They noted that mothers who followed the most rigid of feeding schedules seemed to be the most anxious about child-rearing, and that feeding problems in children were related to coldness of the mother, her use of punishment, her resentment of clinging, etc.

These findings demonstrate clearly that feeding techniques alone have insufficient meaning and impact. It is the interrelationship between technique and style, or the emotional context of the experience rather than the technique alone that determines psychological consequences of the experience.

Differences in feeding techniques are paralleled by differences in the approach to coping with feeding problems. For example, Foster and Mattson (1939) suggest that feeding problems can be corrected by changing the child's attitude towards mealtime. This is best accomplished by making eating a pleasant experience. The discussion of eating habits should be avoided during mealtime. The problem child should be served small quantities, attractively arranged and left in front of him without comment, so he may relax sufficiently to eat with others. Should he fail to eat, his plate should be removed later without comment. Using this approach, the technique and style of the caregiver are of equal concern.

In Prescott's (1965) extensive studies of Day Care centers, teachers were found to have higher expectations of good table manners than parents. Teachers in public Day Care centers insisted that the children taste all food offered and forbade or discouraged conversation at the table. These findings indicate the importance of in-service training to make Day Care

center staffs aware of the possibility of structuring eating situations differently so they can be personalized and positive experiences for children.

Sleep and Rest

Another important routine is sleep and rest. During the first year of life, sleep presents no problem unless there is some external interference. However, during the second year some toddlers begin to resist sleep and rest time. Anna Freud (1965) has suggested that this greater difficulty in withdrawing from wakefulness may be a result of the strengthening of the child's ties to people and of his involvement in the happenings of the external world. He may be afraid of losing contact with people, which is perhaps why he is particularly insistent on the presence of the caregiver and of some show of affection and attention, e.g., a drink of water, a story, being tucked in, etc. There is another, not unrelated, possible reason for the toddler's difficulty in withdrawing from wakefulness. He has gained some control over both external and internal stimulation, and he may be frightened to relinquish to sleep the control that he has conquered during his waking hours. For these reasons, individual attention during rest time may be particularly important in helping the toddler avoid becoming overwhelmed by anxieties which may lead to a vicious cycle of nuisance behavior. In a group situation, the child with sleep problems needs special individual attention; for example, he should be kept out of the room until the other children have fallen asleep and then be permitted to lie quietly, playing with or holding a favored toy and, if need be, have the caregiver stay with him until he falls asleep. The same adult should be present when the child awakens. The problem of setting firm limits without anger and sometimes without insistence on immediate compliance will be discussed in the next section.

Toilet Training

Toilet training is likely to be started during the second year. It is important that training be performed by an adult to whom the child has a strong tie and the desire to please. This is particularly crucial when toilet training is instituted after the child has reached a stage in language development where he can understand what the adult wants and the training is expected to be a voluntary accomplishment of the child rather than the result of sheer habit training. It is generally agreed that the child should not be given too much attention in the process of toilet training. Praise should be genuine but not exaggerated. Feelings of displeasure should not be hidden when the toddler has an accident.

In case a child does manifest resistance to training, it is far better to be patient and let him establish his own controls rather than force him to submit to external pressure because, ultimately this will enhance his feeling of self-control and self-discipline. If the child becomes engulfed in a battle of wills with the caregiver in a Day Care center or nursery, it might be wise to introduce another adult into the situation who would enable the child to change his course of action without losing face.

Research

Normative data have shown that, in our society, toilet training starts on the average at eleven months of age, and is completed on the average at eighteen months of age. Boys tend to be trained somewhat earlier than girls (Sears, Maccoby and Levin, 1957). Incidence of dysfunction is twice as great in children who are trained early as opposed to those trained at average age, although such incidence is higher among boys than girls in both age groups (Prugh, 1953-54). One study found that coercive toilet training resulted in separation anxiety and heightened negativism (Bernstein, 1955).

Once more we find that technique alone has limited value for predicting its effect on personality development. Two studies clearly indicate that the personality characteristics or styles which provide the emotional context for training practices are important in determining the effect of the training experience on the child. Sears, Maccoby and Levin (1957) found that severity of toilet training had a more disturbing effect on the child's psychological adjustment when it was accompanied by maternal coldness and undemonstrativeness than when it was accompanied by maternal warmth. Hetherington and Brackbill (1963) found that the general attitude and personality traits of the parent were the most important determinants of so-called "anal" character traits in a child. Such "anal" traits as heightened obstinacy, parsimony and orderliness in fathers was associated with the same characteristics in boys. The same type of relationship was found between mothers and girls. This suggests that modeling and identification may be more important aspects of the training process than severity of toilet training.

The bulk of research evidence suggests that personnel selection should receive high priority in planning Day Care for children under three. One can train staff to carry out techniques, but to judge from our present state of knowledge, it would be much more difficult to modify style variables, e.g., train a tense person to be relaxed, a cold person to be warm, a controlling person to be less controlling. Since style variables play a crucial part in the adult-infant interaction and therefore need to be controlled, two steps seem indicated: 1) work out careful selection procedures in the recruitment of Day Care personnel; and 2) carry out research on the modification of style variables in adults who function as caregivers of young children in Day Care centers or similar settings.

SOCIALIZATION

We now turn to the socialization of some central motives which govern much of man's social and personal life. Society demands that the expression of aggression be curbed in favor of mastery achievement and self-assertion, and that expressions of infantile dependency be contained in favor of loyalty, trust and self-esteem. In our own society, success of socialization is often measured by the degree to which these transformations have been accomplished. Thus, it seems appropriate to discuss those discipline techniques which are essential for curbing the uncontrolled expression of needs and impulses such as dependency and aggression and their accompanying emotions of fear and anger.

General Discipline

In relation to young children, discipline refers to a situation in which a conflict exists between a child's wishes or acts and the demands from the adult environment. The usual purpose of adult discipline is to make the child conform to social demands. A long-range purpose of discipline is to bring about inner controls which are based not only on the pressure of society but also on the balance of needs, expectations and plans of an individual. The use of certain prevalent social pressures such as punishment and severe discipline, however, are subject to major criticisms. They often fail to achieve the desired results and have undesired side effects, such as making the child more hostile and anxious. For these reasons, most childhood educators prefer techniques which will insure the development of inner controls. It would be extremely uneconomical to depend on external pressures or external controls for socialized behavior. External controls would have to be forever present and in force to guard against transgression of social rules.

One technique proposed to develop inner discipline is to reward and praise the child for the desirable behavior and ignore, if possible, the undesirable behavior. This approach presupposes the existence of a relationship between the child and the adult in which the child has come to depend upon recognition and praise from the adult. Once this intimate relationship has developed, the use or withholding of positive sanctions can be a powerful socializer.

Another important technique toward the same goal is to build up the child's self-esteem and his trust in himself and others. Seeking the esteem of others and having reasonable standards for one's own conduct will help the child to develop inner controls. The caregiver can ally himself with the child's desire to abstain from engaging in undesirable behavior and offer support rather than punishment for incidents of transgression, destruction, and the like. Giving the child the opportunity to take responsibilities which he can carry out and succeed in will further the goal of inner controls.

The adult must provide clear limits and cues for undesirable behavior to help the child recognize and avoid such behaviors. Such limits or rules are likely to be unclear when they are too complex or abstract for the child to grasp and when they are inconsistently enforced. Trying to explain the reason for limits, when possible, guards against the arbitrary application of rules and limits which fosters external rather than internal discipline. (The attempt to provide explanation when indicated and possible may also help the adult avoid the use of discipline to relieve his own feelings.) Arbitrary limits are experienced by the child as a form of punishment and frustration rather than as reasonable ways of helping him to control his behavior. Providing the child with reasons or an explanation shows greater respect for him and tends to remove the conflict from the interpersonal power play between the adult and the child. Stating limits impersonally may have a similar effect. Of course, it must be kept in mind that the young child is not capable of what Piaget has called "Autonomous Morality," that is, of abiding by rules of conduct on the basis of mutual respect as a moral principle. Until the child reaches school age, he will continue to accept demands for discipline largely on the basis of

anticipated consequences of non-compliance. However, effective use of techniques intended to develop inner discipline will produce less discipline conflicts, even in the young child.

The caregiver should make a distinction between the feelings or the motive underlying the behavior and the overt act which is produced by the underlying wish or motive. This distinction is necessary in order to help the child accept his feelings but reject undesired behavior or expression and find other ways of coping with his feelings. One can accept the child's anger and disappointment but at the same time make it clear that hitting or hurting other people is unacceptable. This technique is important for the development of a positive self-concept which, in turn, helps establish the development of inner controls (Galambos, 1969).

Discipline must be fitted to the child; that is, the expectations and standards must be appropriate for the child's level of development. As part of making the discipline fit the child the caregiver should not demand immediate obedience but permit the child some flexibility to comply at his own pace. If the teacher's expectations for compliance are beyond the child's grasp, then they will result in the child's failure to comply and thus in the undermining of his self-confidence in his ability to achieve both mastery and obedience in the same act.

It will be helpful if the teacher has some sort of plan each day for individual children as well as for the group. An environment which allows the child to engage in activities which are goal-directed and gratifying facilitates the development of inner discipline for two reasons: 1) an inner organization of goals and finding means for reaching these goals is a prerequisite for the development of self-discipline; and 2) an organized, resourceful caregiver will serve as an appropriate model for the child to emulate. Internalization of such a model is essential for the development of inner discipline. For the same reason, it is important that the caregiver or teacher be tolerant of minor, harmless and transient transgressions. The presence or absence of such a model in the child's life will make the difference between flexible and rigid self-discipline.

Other non-punitive techniques of discipline have been reported as being effective in stopping undesirable behavior in group situations with children (Gagney, 1965). In order to strengthen self-control, the teacher may give a silent signal such as shaking his head, he may move nearer the disruptive child, boost the interest of the child, or ignore the disruption if it is of short duration. In order to reduce frustration, the caregiver may help the child overcome the hurdle, remove the tempting or disturbing stimulus, and establish certain routines clearly and consistently.

Research

Existing evidence appears to support methods oriented toward the development of inner discipline. Levin (1958) found that children of warm mothers with flexible discipline engaged significantly more often in adult role taking (in fantasy play) than children of cold mothers who exercised strict discipline. Watson (1957) found that children of warm and permissive parents were more independent and more creative while children of warm and restrictive parents tended to be dependent and non-creative.

The most relevant evidence comes from a classical experiment carried out by Lewin, Lippitt and White (1939), who found that only the children of the democratic (warm and child centered) leader continued to hold together and function in an organized way when the leader was absent. The boys of the autocratic (cold, adult centered and restrictive) leader "went to pieces" when the leader left the room. This study demonstrated more clearly than any other the importance of a democratic, that is, warm, child centered and permissive environment for the development of inner discipline and inner controls.

Hoffman and Saltzstein (1960) investigated childrens' reactions to transgressions on the basis of internalized standards versus reactions based on fear of detection and punishment. Children with internalized standards reported that their parents were less likely to employ severe discipline methods such as force, deprivation, or direct commands. The mothers of the internalizers also were more affectionate than the mothers of those children who reacted to transgressions with fear of punishment. In this context, it is interesting that the combination of warmth and domination or severe discipline was found to produce an overly conforming child (Levy, 1943; Meyers, 1944; Maccoby, 1961).

Research conducted within Day Care centers (Prescott, et al., 1967) has revealed a number of relationships relevant to the use of permissive or strict discipline. For example, teachers had higher standards than parents for neatness, noise, care of property and other behaviors in children which affect the smooth functioning of group conduct. On the other hand, teachers had more relaxed standards with regard to the use of bad words, masturbation and proper sex role behavior. Teachers were also found to be more objective and consistent than parents in the administration of discipline. These findings suggest that while teachers may need help in developing greater tolerance for noise and untidiness, especially in handling young children, they can help parents become more relaxed in their attitudes toward modesty and proper sex role behavior. Superstitions and mistaken beliefs can often perpetuate negative attitudes toward sex related behavior. It would be both interesting and important to investigate whether a closer relationship between teachers and parents, combined with casual discussion of such above mentioned matters, might modify the attitudes of parents. Also, such contact might help the teacher to better understand the sources of anxiety and tension in the children under her care.

There is evidence from studies of Day Care centers (Prescott, 1965; Prescott, et al., 1967) that teacher attitudes as well as practices, toward discipline are determined by both environmental and personality factors. Prescott noted that teachers who functioned in centers which focused on transmitting the social values of their culture exhibited more restrictive discipline than teachers in other centers. Similarly, adult centered teachers tended to be more authoritarian and to use more restrictive discipline than child centered teachers. Teachers concerned with rules of social living and with control were found to be irritable and unfriendly. Increased teacher training was associated with the use of more permissive discipline. Finally, teachers who employed strict discipline received more negative responses from their children than teachers who employed encouragement as their main technique.

These findings indicate that it is important to work with administrators and board committees of Day Care centers who set objectives or define the teacher's role in an adult centered context in order to inform them of the advantages of a more child centered orientation. These findings further suggest that amount of training and personality characteristics should serve as important criteria in the recruitment and selection of caregivers and teachers for Day Care centers, particularly where centers cannot offer continued in-service training and adequate supervision.

Aggression

One of the primary objectives of the parent or educator role in most societies is the socialization of aggression, that is, to develop controls which will enable the child to regulate his aggressive behavior in accordance with accepted societal demands. In carrying out this task, the educator must distinguish between different kinds of aggression and help the child to make these distinctions; she must understand 1) sources of aggression, and 2) factors influencing the development of inner control of aggression.

1 - Basic distinctions between different kinds of aggression include: destructive and assertive, intentional and accidental, conscious and unconscious, action versus feeling, wish or fantasy, and attack versus defense. In our society, it is generally assumed that the child must learn to control the expression of unprovoked, destructive, intentional, and conscious aggressive acts. The caregiver or teacher who prohibits aggression without making a distinction between different kinds of aggression prevents a child, both emotionally and cognitively, from making such distinctions which, in turn, will result in inhibition or poor control over aggression as well as behaviors, e.g., assertiveness, initiative in achievement striving and social interaction. Similarly, rejecting both the expression of feelings of anger and aggressive acts will result in lowered self-esteem which is an important component in the development of inner controls. The child's awareness of his feelings represents an important part of his self-image. If his negative feelings are rejected, he will have a low opinion of himself and little motivation to control aggression or other socially unacceptable behaviors.

2 - Understanding of the sources of aggression is necessary if the educator is to be effective in developing control of aggression in children. One of the major sources of aggression is frustration which is often experienced as pain or failure. The teacher can reduce this source of aggression by reducing experiences of frustration and failure in the child's environment. The teacher needs to discover those experiences which are frustrating to a particular child in order to provide him opportunities to develop alternative ways of coping constructively with frustration. More importantly, a teacher can institute preventive measures to keep provocation and frustration to a minimum by organizing and planning the day's program for her children ahead of time and thus avoid disorganization (Soltys, n.d.). Such preventive measures take into account the realization that the young child does not yet possess adequate inner controls and needs much security from the environment. He needs reassurance that somebody accepts responsibility for controlling him (Baker, 1967). In the Day Care center, the teacher can provide this reassurance through: 1) clearly

and consistently setting limits, firmly but without anger; and 2) accepting the child's negative feelings without accepting his aggressive behavior. For example, if a child attacks another child, the teacher states her rules, saying that she cannot let him hit others and that she won't let others hurt him. She says this as she delivers any other criticism, that is, apart from other children so as not to undermine the child's self-esteem. She talks to him directly, looking into his eyes and holding him if necessary (Galambos, 1969). After the child has calmed down, the teacher may encourage the child to talk about his anger. If the teacher responds in this way, the child will begin to realize that the teacher is there to help him, not just to stop him. Moreover, by accepting his negative feelings, the teacher helps the child maintain his self-confidence which in turn, enhances his development of inner controls and inner discipline. An additional way of building the child's self-esteem is to praise him for having coped successfully and non-aggressively with frustration.

In all that has been said so far, the teacher's reactions to aggression of the child have been non-punitive. There are important reasons why the punitive actions of the adult to a child's aggression is, for the most part, ineffective in helping the child to develop adequate controls over his aggression. Punishment is a frustration, and frustration instigates anger and aggression. Moreover, a punitive adult serves as an aggressive model which the child imitates. Both consequently result in a vicious cycle: aggression leads to more aggression. The direction of the cycle can be reversed when the teacher is tolerant and does not always intervene when she perceives an aggressive act. When children find the model to be more tolerant, they learn to become more tolerant of minor quarrels and aggression and learn to take a certain amount of frustration in stride.

Research

Appel (1942) investigated techniques for controlling aggression in nursery school children aged two to four. Non-punitive methods of controlling aggression, such as diversion, separating children and interpreting the wishes and feelings of one child to another were most effective. Interpreting feelings to or of an aggressive child is similar to the differentiation of feelings and actions discussed earlier in this chapter. In contrast, Appel found that arbitrary decisions and punitive methods such as disapproval and moralizing were ineffective. Age-inappropriate methods such as having two, three, and four year olds "talk it over" were also ineffective. Kounin and Gump (1961) investigated the comparative influences of punitive and non-punitive teachers upon children and found support for their major hypothesis that punitive teachers would create or activate more aggression and tension than non-punitive teachers. It is evident from this finding that the process of modeling plays a major role in the effects of the adult-child interaction on aggression. Kounin and Gump also found support for their second hypothesis that children with punitive teachers would be more unsettled and conflicted about the meaning of misconduct in school than children of non-punitive teachers. Teachers who used highly clarified control techniques were most successful in containing aggression.

Evidence on the socialization of aggression shows that technique alone is insufficient for the modification of aggression in children. Patterns of both parental attitudes toward aggression and techniques of handling such aggression seem necessary to predict outcome. Sears, et al., (1957) found that parental disapproval of aggression implemented by punishment of physical aggression produced the most aggressive children, whereas parental disapproval implemented by techniques other than physical punishment produced the least aggressive children. Thus, it seems that punitive handling of aggression in children is most ineffective in modifying aggression.

A series of studies has indicated that the modeling effect of aggression is particularly strong in males (Levin and Sears, 1956; Bandura and Walters, 1959; McCord, et al., 1959; Eron, et al., 1961; Winder and Rau, 1962).

An interesting dilemma is posed by findings which show that permissiveness, especially in mothers, is correlated with aggression in children. The contradiction with the modeling approach disappears whenever one takes into account other factors which contribute to the complex interaction between these variables. Some clarification comes from the finding that adult inconsistency facilitates aggression in the child. This may occur in two ways. First, one or both parents may be aggressive some of the time and permissive at other times. Secondly, a permissive adult may pay little attention to the child until the child becomes an intolerable nuisance; then he explodes and counters the child's aggression with an aggressive outburst of his own. Thus, when the adult does become attentive and intimately interactive with the child, he serves as an aggressive model. This is in sharp contrast to the more ideal model of consistent and permissive discipline formulated earlier, where the adult pays attention to the child, particularly when the child engages in non-aggressive behavior or copes with frustration in non-aggressive ways.

One reason for the inconsistency in the aggression relationship should be clear from the earlier discussion showing that consistency of non-punitive discipline was a prerequisite for the development of inner controls. Without the protection of external checks and with inadequately developed inner controls, the child -- once he has become engaged in an aggressive action -- will provoke external checks, such as outbursts of permissive adults. This may help us to better understand why Siegel and Kohn (1959) found that the presence of a permissive adult reduced the effectiveness of inner controls in children. This situation may have provoked two processes. One, the child may have interpreted the adult's lack of response as license for aggression. Secondly, and, probably more importantly, once the child made an aggressive response, the presence of permissive adults instigated testing behavior in the child to provoke external checks from the adult. It would be interesting to repeat the Siegel and Kohn study and control for the child's background to see if children of inconsistent permissive parents tend to show a greater increase of aggression in the presence of the permissive adult than children who experience consistent discipline or have permissive parents who also provide clear and firm limits for the child's aggression.

Further light is thrown on the relationship between adult permissiveness and aggression in children by Baldwin (1949) who found that democratic

parents who were high in warmth, permissiveness, and rationality had children who were higher in social assertive aggression, which was usually successful with nursery peers. Similarly, Levy (1943) found that over-protective, permissive mothers had children who were more aggressive at home but less aggressive at school. Thus, a permissive adult who has an intimate, involved relationship with a child is more effective in socializing aggression than an adult whose permissiveness consists primarily of lack of involvement and some type of inconsistency.

Thus, the question of permissive versus strict control of aggression is an over-simplification of the issue. The best objective recommendation based on the research literature would be that the Day Care teacher must have a positive emotional bond with the child; permit minor aggressive acts to let children learn to handle such aggression and other frustrations effectively; differentiate between feelings of anger which are accepted and aggressive acts which are not permitted; set clear limits against injurious and destructive aggression, and enforce these limits consistently, without delay and without being goaded into aggression against the child.

DEPENDENCY

Like aggression, dependency is a complex phenomenon, and it is important to draw conceptual distinctions between the various aspects of dependency.

The human infant is born helpless and depends on adult caregivers to gratify his basic needs for survival. After repeated experiences of adult intervention which lead to the cessation of discomfort and tension, the infant develops an expectation of adult intervention in such states of distress and of those behaviors which tend to be part of the intervening process. After a while, the absence or removal of the caregiver who has been in close contact with the child begins to symbolize deprivation and pain because the child fails to experience a decrease of tension and pain when the adult is not present. This sequence is the basis for separation anxiety which becomes an essential component of the dependency process. Distancing, removal, and absence of the caregiver elicit anticipatory reactions of distress, as well as a feeling of helplessness. Under certain circumstances, the emotional state produced by separation anxiety evokes behavior in the infant which has the purpose of re-establishing contact and proximity with the adult. Several other associated reactions of the caregiver in the nurturance interaction with the infant also become associated with dependency motivation. The child is more likely to experience tension reduction or need gratification in association with positive adult reactions, such as smiling and praise. Hence the need for eliciting praise and approval from the adult. Altogether, the infant is more assured of nurturance and need gratification when the caregiver pays exclusive attention to him. Thus, the efforts of the child to maintain uninterrupted attention from the caregiver become an intricate part of the dependency motive. Finally, the infant consistently experiences that his demands for assistance lead to an interaction which coincides with gratification. This process is referred to as help and the concomitant maneuvers of the infant to bring about such a state of affairs is referred to as seeking help. Thus, seeking contact, nearness, help, praise and approval, as well as continued attention represent

the empirical basis for a generalized dependency motive. The empirical validity of this dependency construct has been demonstrated repeatedly by the present writer and others (Beller, 1955; 1959; Hartup, 1958; Beller and Turner, 1964; Emmerich, 1966; Todd and Nakamura, 1970).

In the interaction between adult and child, one must distinguish several further aspects of dependency which have quite different implications for personality development. One of these is phenomenological dependency or a subjective feeling of helplessness.

A second aspect is instrumental dependence. This occurs when a child seeks adult assistance or intervention simply because he cannot gratify his needs or achieve his momentary goal through his own efforts. As with instrumental aggression, instrumental dependence constitutes an asset in the development of independence and self-sufficiency.

Finally, dependency conflict occurs when an individual child experiences instigations which conflict with his desire or active attempts to solicit dependency gratification from the caregiver. Dependency conflict is often experienced as a feeling of mistrust toward the nurturant person. The behavioral manifestations of dependency conflict are inhibition, vascillation and displacement of dependency behavior, the expressions of which may now be measured by a series of scales (Beller, 1961, 1969a).

Most cultures, including our own, do not intend to reduce dependency motivation below a certain point. From a broad societal level, the need for help and the desire for attention and recognition remain a powerful force in the continual functioning of a society; thus, the important objective is to change the intensity and initial infantile quality to a more mature form of interdependence. Interdependence refers to a mature relationship such as friendship, companionship and marriage, where the desire for physical proximity, attention and recognition continue, but with reduced intensity which grants the dependency object physical and emotional autonomy. Socialization of phenomenological dependence in the form of feelings of helplessness is expected to change qualitatively into awareness and acceptance of one's own limitations.

Having outlined these various aspects of dependency and the direction of their socialization, it is possible to suggest those types of adult behavior in caregiver or teacher-child interaction which are likely to facilitate ideal modifications of infantile dependency. One is the consistent availability of a stable adult who can provide a secure environment for the child. This promotes exploratory activity and the development of unaided effortful striving which is likely to reduce a feeling of helplessness. It is important that the adult reinforce this development in its early stages by encouraging the child in his own exploratory activity.

Rejection of dependency demands will interfere with the reduction of dependency and simultaneous development of interdependence and self-sufficiency. Inconsistent response to the child's dependency demands is likely to result in continued testing and excessive demanding by the child. Similarly, the nurturant caregiver or teacher who responds only when the child's demands have reached a high emotional pitch reinforces excessive dependency.

The implications of these findings for Day Care are that hiring practices should attempt to screen out adults who are irritated by children's fretting and excessive dependency demands because such persons are ill equipped to socialize infantile dependency motivation and conflicts and channel these towards more mature interdependence, trust in others, and eventually self-confidence.

Research

Very little, if any, research has been done to date to investigate changes in children in the various areas of dependency outlined above and the conditions which facilitate such changes. There is some evidence (Levy, 1943; Watson, 1957) that patterns of indulgence and overprotection coupled with domination and severe discipline produce children with excessive dependence. Heathers (1953) found that dependent behavior in children was associated with maternal overindulgence and encouragement of dependency behavior. Kagan and Moss (1962) reported heightened dependency in adults who had restrictive mothers. In the investigations of Sears, Maccoby, and Levin (1957), the mothers of the most dependent children became irritated by dependency demands. These mothers tended to ignore or reject such demands but to give into them when they became unbearable. This relationship varied for boys and girls as a function of successive age spans and was more consistent into adulthood for girls than for boys. It is interesting that there is, as yet, very little if any evidence that the powerful mechanism of modeling and imitation has any direct bearing on the development of dependency motivation in children.

The present author obtained some evidence concerning the relationship between time of entry into the schools and dependency conflict (Beller, 1969a). Disadvantaged children who entered the first grade without any prior schooling were more conflicted in expressing their dependency to teachers than children who had been in school since nursery or Kindergarten. Thus, the disadvantaged child who approaches school with a considerable amount of mistrust toward the adults is able to develop greater trust after he has had the opportunity to become more familiar and secure with his teachers.

In a series of other studies (Beller, 1968), the present author found that the high dependent child is adversely affected by the inattentiveness of an adult. These children perform more poorly than less dependent children on difficult learning tasks when the learning is preceded and/or accompanied by adult inattentiveness and when the adult changes his nurturant behavior from the pre-learning to the learning situation. Thus, when confronted with the difficult learning task, the high dependent child needs more nurturance and more consistency from the interacting adult than other children to meet successfully the challenge of the learning task.

INDEPENDENCE, ACHIEVEMENT STRIVING AND SELF-ESTEEM

The term "independence" has several meanings which are not synonymous: withdrawal from people; defiance or going against people; and self-sufficiency. The first two meanings of independence shall not concern us because they refer to reactions built up as a defense against anxiety over interpersonal relationships, particularly with people in nurturing,

protective and authoritative roles. Impulsive and sporadic running away from the caregiver and defiance are appropriate stages in the normal development of independence at an early age; however, if they persist, they are indicative of anxiety over dependence rather than self-sufficiency.

Our concept of independence is linked to achievement striving. It is derived from the infant taking initiative in exploring his environment, encountering obstacles, and persisting in his activity until a certain goal has been reached. Successful experiences of such unaided exploratory activity represent autonomous achievement striving. Continued successful experiences result in the composite trait which consists of taking initiative, persisting, and completing activities (Beller, 1955, 1959). One may expect autonomous achievement striving to be positively correlated with self-esteem, especially when such striving is not propelled by dependency anxiety.

To facilitate the development of autonomous achievement striving, the adult should be readily accessible, yet unobtrusive, in order to provide the background of security for the child's ventures into independent exploration. Such exploratory activity can be facilitated by arranging materials so that they are accessible to children without adult assistance. Equipment should be selected so that the children can operate independently and plan activities in which they can succeed. The emphasis should be on the use of materials rather than on the end product. The teacher should encourage the child when he works on a new and different task and not interrupt the child who is occupied constructively. She should refrain from intervening actively and simply provide clues through questions and comments. Whenever possible, the teacher should praise small successes to build up self-confidence, particularly in children who are insecure.

A number of teaching techniques are indicated to facilitate the development of self-confidence in the child. The teacher can emphasize what the child can do verbally and give praise freely when justified. Also, the child can be given the opportunity to continue in what he has learned before going on to something new so he can enjoy his competence, which, in turn, will facilitate the development of self-confidence.

Research

Watson (1957) found that children reared in warm, permissive homes were more independent, that is, they more easily assumed responsibility for their own behavior and were more friendly in their interactions with adults. Prescott, *et al.* (1967), observed that teachers who fostered independence in children also used encouragement as a preferred technique and were warm and giving to their children. Low authoritarian teachers were rated highest for dealing constructively with the child's strong emotions and for their concern for the child's feelings, rights and self-sufficiency. Winterbottom (1953) reported that early encouragement of independence by mothers who had a warm and accepting relationship with their children resulted in higher achievement of children. Crandall, Preston and Rabson (1960) investigated the effect of maternal reactions to dependency overtures and achievement behavior in children, and reported that children rewarded for achievement striving in the home displayed stronger striving outside the home.

Thus, we may conclude from the available studies that a warm, accepting, non-authoritarian relationship between caregiver and child, expectations of early independence and reinforcement for achievement are all predictive of increased independence, autonomous achievement striving, and self-esteem.

COGNITIVE DEVELOPMENT

Since other chapters concentrate on cognitive development and language development (see Kagan and Cazden, et al.), the present section will confine itself to the impact of the adult-child interaction on the cognitive functioning and development of the child.

Educational programs which are oriented toward the development of specific language and cognitive skills favor a structured curriculum approach in which the focus is on materials and on the task rather than on the interpersonal aspects of the situation (Bereiter and Englemann, 1966; Stern, 1969; Gotkin, 1970). Programs which are more concerned with broad-based cognitive development, with the child's curiosity for discovery, and with the child's creativity tend to stress warm, nurturant and personalized handling of the child by the adult (Katz, 1969). The teacher stimulates inquiry, encourages questions and shows the child that she appreciates his contributions. Learning takes place around daily life experiences rather than around pre-programmed materials. The adult provides the child with opportunities to choose from a variety of learning resources, rather than structuring each step of the learning experience. Learning is shaped around the child's needs and preferences. The adult accepts and appreciates divergent reactions of the child and permits the child to arrange his own individualistic sequences rather than urging him to follow prescribed ways (Bingham, 1966; Haberman and Persky, 1969).

Research

Several studies have investigated relationships between the adult-child interaction and language development in children. Gray and Klaus (1965) attempted to improve the children's language in the context of encouraging achievement, delay of gratification and keeping the teacher-child ratio low enough to permit individual attention and responses from teachers to the particular needs of the child. Language was stimulated by making it necessary for children to ask for attractive toys. Performance on both the language and IQ test was significantly better than in a matched group which didn't participate in this program.

Smothergill, et al. (1969), investigated effects of elaborate and non-elaborate verbal communications between teachers and children. Non-elaborate statements (directive statements) were those involving a minimum of information necessary for the teacher to direct the action or behavior of the child. Elaborate statements were those which conveyed more information than was essential for completing tasks, gave reasons for the request and provided labels and descriptions. The teacher requested verbal feedback from the child and gave supportive statements to reward the child for responding verbally to the teacher. Investigators found that their elaborative method produced more elaborative statements on a post-test in the group

receiving the elaborative language training. The authors also found that children trained with the elaborative method were significantly better on verbal problem-solving tasks on which they had received no training. The present author (Beller, 1967) carried out a study in which an attempt was made to personalize language training for children enrolled in Head Start. Methods of language training were constructed to match the individual cognitive styles of children. It was found that children whose language training was adapted to their preferred cognitive style learned vocabulary better and improved more on the Illinois Test for Psycholinguistic Abilities than control children and children with non-adapted language training. Although the three language training studies used very different curricula, they shared in common the investigation of personalized versus non-personalized verbal interactions and training and all found personalized training superior (see Gray and Klaus, 1965; Beller, 1967; Smothergill, *et al.*, 1969).

Several other studies have found relationships between teacher-child interaction and cognitive functioning. De Groat and Thompson (1949) found that children who received high approval from teachers were more intelligent, higher in academic achievement and scored higher on personality adjustment tests. Hoehn (1954) reported that teachers had more favorable contacts with children of higher economic status and of high academic achievement. In a more recent study of observational techniques in preschool classrooms, Wilensky (1968) found that teachers spent more time with brighter children. While these studies show clearly that positive behaviors and attitudes of teachers are associated with better cognitive functioning in children, more detailed information is needed concerning the adult-child interaction for the training of teachers and for the planning of concrete strategies of the teaching situation.

Rosenshine (in press) has attempted to produce more detailed information about motivational and cognitive components in a critical review of observational research between teacher variables and pupil achievement. With regard to the motivational component, approval and disapproval can be further broken down to discern with greater precision their effect on cognitive performance. While neither verbal or non-verbal praise by itself (Perkins, 1965; Spaulding, 1965; Harris and Serwer, 1966; Soar, 1966; Harris, *et al.*, 1968), was found to be related to pupil achievement, specific expressions and elaborations of praise did prove to be effective. For example, Wallen (1966) found that brief verbal expressions, such as "Aha" and "Right", related positively to improved cognitive performance. Probably such expressions have more distinct cue value than non-verbal expressions and are both more specific and less interfering than more elaborate verbal statements. However, certain types of elaborations, such as restating and analyzing the response of the child or explaining what was good about the response, were found to make praise more effective (Perkins, 1965; Fortune, 1966; Morrison, 1966; Soar, 1966). Possibly the greater effectiveness of the latter type of praise is due to additive effects of motivational components of praise and cognitive clarification of the response being praised.

While disapproval or criticism has been found to have a negative effect on cognitive behavior and learning, it appears that the intensity of criticism is crucial for its effect. Only strong criticism has shown a consistently negative effect on achievement. No negative effects have

been found for mild criticism, which has sometimes shown positive effects on cognitive performance. Finally, combinations of praise and criticism have yielded positive relationships with cognitive performance as the proportion of praise increased and exceeded criticism.

Investigators have found specific patterns of probing and intellectual exercise to be very effective. For example, one study found equal mixtures of convergent and divergent questions to be most successful (Thompson and Bowers, 1968); another study (Soar, 1966) found a higher ratio of inquiry as opposed to drill activity to be most effective. Rosenshine (in press) concludes from his extensive review that the most successful interactional strategy may involve, initially, a moderate amount of structuring by the teacher to elicit responses from children, then reinforcing children for their cognitive reactions and finally encouraging children to further elaborate their reactions. It is this last formulation which addresses itself to a more complete segment of the adult-child interaction affecting the cognitive development of the child. The fruitfulness of such an approach can be illustrated by a study which attempted to encompass a more complete segment of the complex interrelationships between motivational and cognitive factors in the interactions between teachers and children in Head Start programs (Beller, 1969a).

A central question of that study was whether intellectual gain from the program related to teacher-child interactions around dependent behavior of children. It was found that children who gained in their intellectual performance when compared to other children made more realistic dependency requests of the teacher, received more positive reactions to their requests, made more constructive use of the help they received, and reacted more constructively when the teacher failed to respond to the child's request. A second question involved in the above mentioned study was whether children who gained evoked more social reinforcement for their autonomous behavior. The findings showed that boys who gained received twice as much unsolicited attention from adults and peers than the other boys even when they engaged in autonomous behavior.

This study also investigated further links between teacher behavior and autonomous achievement as measured by a child's success in learning a problem-solving task under conditions of intrinsic reinforcement. It was found that both teaching techniques and teaching styles affected the child's ability to learn the problem-solving task (Beller, 1969a, 1969b). Children who learned the problem-solving task best tended to come from teachers who used more diversified teaching techniques, a more flexible curriculum, more flexible arrangements of classroom space, and who made less distinction between work and play. Teacher style characteristics associated with success in problem-solving were greater closeness to the child, respect for the child's family and an emphasis on consideration of the rights and idiosyncrasies of others. Finally, more of the children who gained intellectually from the Head Start program came from teachers who manifested respect for the child's family.

This work shows clearly the importance of a positive cycle in the teacher-child interaction. For the children who gained, the teacher responded positively not only to the child's dependency request but also to his uniqueness, his rights, and his family. In turn, these children

made more reasonable requests of the teacher, were more patient and reacted more constructively when the teacher could not meet their requests immediately. Clearly, emotional components and interpersonal attitudes play an important part in the impact of the teacher-child relationship on the cognitive development of the child. There is another important implication of these findings. The great similarity between certain behaviors of teachers and children who benefited most from Head Start suggests that a modeling process as well as reinforcement were at work in the situation. Both teacher and child were more accepting of each other, more sensitive to each other's needs, and more responsive to the autonomous needs of the other person. The child who succeeds in meeting the adult's expectation by growing intellectually, who waits patiently until the adult is ready to meet his request for help, who makes constructive use of the help he receives, and who copes constructively with the teacher's failure to help him or to pay attention to him evokes not only similar behavior on the part of the teacher but also reinforces the teacher to behave in a similar way. The subtle manner in which this benign cycle continues to function can be seen in the teacher's unsolicited and non-intrusive expression of interest in the child when he engages in solitary play or other autonomous activities. Supportive evidence for such an interpretation comes from a study by Battle (1957) which found that a high achiever and his teacher held more similar values than a low achiever and his teacher.

The implication of these findings is that a great deal more effort needs to be exerted by Day Care teachers to initiate positive cycles in their interaction with children. Modeling is probably not just a one-way process in which the adult provides the model and is the sole reinforcer. We know well from parent-child interactions how strong a regressive pull a young child can exert on a parent. It may be equally true that a child can be, intermittently, a much needed source of reinforcement for the adult's positive, integrative, and mature interpersonal behavior.

After having discussed in some detail the accumulated data and research findings concerning the adult-child interaction, we shall now turn to a proposed conceptualization of the adult's role in this interaction. It is hoped that such an attempt will facilitate the ordering of data and systematic study in this field.

CONCEPTUALIZATION OF THE CAREGIVER'S ROLE

The earliest attempts to study adult-child interactions in group settings used very global concepts with little empirical verification of the dimensions used to define the concepts. Anderson (1937), for example, distinguished between dominating and socially integrating behavior. The dominating adult, he noted, is not concerned with the individuality of the child but arbitrarily exercises authority and is generally punitive, rigid, and static in her interaction with the child. The integrative teacher who is interested in the child's spontaneous, self-initiative behavior, shares with him a common purpose, and tends to be flexible and spontaneous in her interactions with the child. Although Anderson dealt with several dimensions of the adult-child interaction, his major concern was to differentiate power and mutuality. Around the same time Lewin, Lippitt, and White (1939) carried out their classical experiments on autocratic, democratic, and laissez-faire leadership. The first two of these types

of leadership were quite similar to Anderson's distinction between dominating and socially integrative behavior; however, adding laissez-faire leadership permitted a more specific separation of the dimensions of adult-child interaction. This additional type subsumed some of the features of the other leadership behaviors and also possessed its own unique features; thus, it was possible to rule out some of the built-in bipolarity between authoritarian and democratic styles. Recently Beyer (1968) has proposed a system of conceptualizing teacher behavior which also seems a step forward in categorization. Beyer whose primary interest is in the teacher-child relationship in the nursery, distinguishes between four teaching styles. At one extreme is rule by "iron hand," and control by fear, which resembles dominating and autocratic behavior. At the other extreme, there is a category of teacher submissiveness which refers to situations in which children dominate the teacher. The other two categories concern the genuineness and maturity of the adults' behavior in relating to the child: one is labeled "artificial relationships," which encompass "sickly sweet" behavior, and "child-like," inappropriate, playful behavior; the other refers to genuine involvement and interest in the child. This last mentioned category entails respecting the child's uniqueness, taking cues from the child's needs and being able to express both positive and negative feelings without threatening the child. The advantage of both Lewin's and Beyer's system is that neither assumes positive correlations between different dimensions such as control, emotional involvement, and flexibility within a single complex style category. Further steps toward distinguishing dimensions of teacher-pupil interactions were made by Withall (1949) Flanders (1965) and Amidon and Hough (1967). However, these investigators pooled categories into bipolar clusters, i.e., "learner centered" versus "teacher centered" or "indirect" versus "direct", without establishing empirical relationships between measures.

In more recent studies (Prescott, et al., 1967; Beller, 1969b), the multivariate approach to the conceptualization of teacher-child interaction is further emphasized by relying on objective, empirical methods for the interrelatedness between separate dimensions of teacher behavior. For example, Prescott, et al. (1967), in their extensive study of Day Care centers, analyzed their measures by means of factor analysis and obtained four separate patterns of teacher behavior: encouragement versus restriction; conformity to routine; group teaching; and, independence. In a study of Head Start centers, the present writer (Beller, 1969b) factor-analyzed 10 dimensions of teacher behavior and obtained essentially two factors. One of these consisted of the socioemotional components of the adult-child interaction (i.e., close to children, non-controlling, approval oriented, individual child oriented); the second factor contained curriculum oriented items (i.e., flexibility of program and classroom arrangement, control of materials, and distinction between work and play). The utility of such a multi-varied approach in the conceptualization of adult-child interaction becomes quite evident when the findings are applied to teacher training and when the technique is used in the systematic study of the specific effects of teacher behavior on the socioemotional and cognitive functioning of children, as discussed earlier in this chapter.

In spite of its advantaged, the multivariate approach to the study of teacher-child interaction has created certain problems. One universal problem in working with multiplicity of variables is that of finding an

adequate conceptual framework for making all the interrelated variables meaningful and manageable for purposes of communication and application. The absence of such an overall conceptualization has often invited oversimplification to global concepts because the categories within the system did not fit into psychological or sociological dimensions which would relate to one another in a meaningful way without losing their identity. For example, when one finds conformity to routines, emphasis on guidance, care of physical needs, and use of verbal skills as the items loading on one factor (Prescott, et al., 1967), it becomes clear that there are few conceptual links between these items among themselves and with other items. Comparability of findings derived from various sets of categories constructed by different investigators is equally difficult without an overall conceptualization of the adult-child interaction.

Since our basic interest is the impact of the caregiver or teacher on the young child, an attempt will be made to conceptualize the adults' roles and functions in this interaction.

Caregiving can be defined as the functioning of an individual or a group for the purposes of gratifying the needs and making possible the attainment of certain goals in relationship to the recipient of care. Katz (1969) has made a very useful distinction between teacher role and style of teaching. She has defined "role" as teacher behavior which concerns the duties, responsibilities and functions expected of the teacher. For example, in her maternal role, the caregiver concerns herself with the gratification of the child's needs and with the protection of the child from injury and harm. In the caregiver's role as socializer she addresses herself to developing socially acceptable conduct and attitudes in the child. The instructional model of the adult as a teacher refers to the development of cognitive skills, strategies and interests in the child. Thus, it is clear in each of these instances that the term "role" refers to an expected effect of the adult functioning on the child.

Katz (1969) has defined teacher "style" as the individual way in which a teacher performs her role. Although the distinction between "role" and "style" constitutes an important contribution to the conceptualization of adult-child interaction, further clarification is needed. As a beginning step toward clarification, it is here suggested that a distinction be made between "style" and "technique."

"Technique" of caregiving refers to the strategies and methods employed by the caregiver or teacher to carry out her role or to accomplish her objective. For example, a caregiver may use varying amounts of reward or punishment, praise or criticism to socialize a child. A teacher may instruct a whole group of children or individual children; she may provide factual information or create opportunities for the child to discover such information on his own. Even with regard to the latter, she may use questioning, suggestions or active direction as her preferred technique for achieving the goal of developing a greater fund of knowledge in the child.

The term "style" needs to be defined more systematically than "the way in which the adult caregiver or teacher performs her role" (Katz, 1969).

style refers to personality traits and attitudes of the caregiver or teacher which are not a planned component of the role. Any reaction or attitude which becomes a planned component of role functioning is a technique and not a style element. Thus, characteristics such as friendly or unfriendly, warm or cold, intimate or detached, sensitive or insensitive, relaxed or tense, and strict or permissive are style variables only if they are unplanned characteristics of role functioning. As we shall see, such characteristics have important consequences on the success or failure of a caregiver's or teacher's role. However, when such characteristics are the result of training to bring about a certain effect, they become techniques.

DETERMINANTS OF THE ADULT-CHILD INTERACTION IN THE DAY CARE SETTING

A number of determinants must be carefully controlled if one wants to study variations in adult-child interactions. The environment of a Day Care center can be an important determinant of the educational staff and program which in turn affects the adult-child interaction. Examples of environmental determinants are sponsorship, size, location as well as program and activity setting. Staff variables such as training, personality and role concept comprise a second class of determinants. A third group of determinants is made up of the characteristics of children served by the Day Care center, e.g., age, sex, social class, and a wide range of handicaps which affect adult-child interactions.

The Environment

The size of Day Care centers appears to be an important determinant of variations in the adult-child interaction. For example, Prescott, et al. (1967), reported that teachers in medium-size centers more often used encouragement as a technique, emphasized pleasure, creativity and interaction with other children, and manifested a low frequency of restriction, rules of social living and control of children. Teachers in large centers were found to make more frequent use of control and restraint and of direct guidance and to emphasize rules of social living; they also tended to be adult rather than child centered. A major difference between large and small centers involved the affective relationship between adults and children. Large centers were found to leave the staff less free for warm and accepting relationships with children. Staff members in small centers, by contrast, related more closely and intimately with the children. These findings indicate clearly that Day Care centers should not be too large or else should be broken up in such a way that different sections have a great deal of autonomy and can function, for all intents and purposes, like smaller centers. Another implication of these findings is the need for sufficient staff to relieve the teacher and caregiver of administrative responsibilities so that they can devote most of their energy and attention to interactions with the children.

The program and activity setting have been found to be important determinants of teacher behavior. For example, parts of the program dealing with essential routine activities evoke greater amounts of direction and restriction, as well as more concern with control and rules of social living. In contrast to highly organized group activities, free choice

settings and free play evoke the highest incidence of encouragement. These findings indicate that a great deal of in-service training is needed for the handling of routine situations such as lunch and rest. Details for handling essential routines in a more personalized and non-restrictive way and the implications of this issue for the development of inner controls were conveyed earlier in this chapter.

Staff Variables

Training, personality and role concepts have been found to be important determinants of teacher functioning. Prescott, et al. (1967), found that teachers with little or no training used restriction most often and indirect guidance least often. Certified teachers who had a lot of training showed most concern with a child's getting along with his peers and being considerate of the rights and feelings of others. These teachers were less concerned with control and restraint. As the teacher's amount of training increased her attitudes toward authority became less arbitrary and her attitudes of warmth increased. It is clear from these findings that a great deal of effort and resources need to be applied to the training of Day Care staff. Lack of training is likely to surround the child with experiences of harsh and strict discipline, arbitrary authority and emotional rejection. As was discussed earlier in this chapter, these factors produce aggression, feelings of inadequacy and other undesirable characteristics in the growing child.

Some interesting and important findings are reported by Harvey, et al., (1966) on the relationship between a teacher's belief system and her interaction with Head Start pre-school children. The most abstract teachers expressed a greater warmth and perceptiveness and were flexible in meeting the interests and the needs of the children. They also were more relaxed and less punitive with the children, encouraged individual responsibility, creativity, free expression of feelings, and invoked unexplained rules less frequently. These findings suggest the need for investigating possibilities of changing adult belief systems in order to determine how much weight belief systems should be given in the selection of staff for Day Care centers.

The teacher's role concept has been found to be related to various aspects of her behavior. For example, Prescott, et al. (1967), reported that adult centered teachers who aspired to teach children ways of behavior which are valued by adults have higher expectations for mastery of cognitive skills than child centered teachers. These teachers also manifested more frequently arbitrary attitudes toward authority and low warmth. Teachers who had a child centered role concept used encouragements frequently and restriction infrequently, and emphasized pleasure and creativity in their activities with children.

Child Variables

Important child variables which affect the functioning of the caregiver and teacher are age, sex, social class and psychological or physical handicaps.

The teacher in Day Care must adapt her functioning to the developmental

level of the child. To be uninformed about the child's developmental level may cause disappointment and frustration in both the caregiver and the child. Day Care center staff must become informed through instruction and guided experience on what to expect of children at different age levels and adapt its functioning accordingly.

Children from deprived backgrounds require different levels of expectation with regard to their frustration tolerance, impulse control, trust in self and others, and development of intellectual skills such as language and manipulation of abstract concepts (Passow, 1963; Pavenstadt, 1968; Grotberg, 1969). In planning nurseries and Day Care centers for these children, it is crucial to consider the involvement of the child's family and members of the neighborhood and immediate community in the educational process of the child, since this participation is essential in the attempt to modify the total milieu of the child (Head Start, 1969).

How the child's social class can affect teacher expectations was demonstrated by Prescott, *et al.* (1967). Teachers in centers serving low income families had more relaxed standards than those in high income centers in almost all areas of behavior except modesty and sex play. Nevertheless, the low income parent still had considerably higher standards for modesty and sex than the teachers of these children. Similarly, with regard to standards for sex role development, this discrepancy between the lower income parent and the teacher was much greater than between mothers and teachers of high income families. With regard to nurturance, lower income parents were much more likely than teachers to state that they would tell a child to do something himself without offering him help. To make matters worse, teachers of children in low income centers were less likely than teachers in other centers to show affection for individual children. Teachers serving high income families were particularly prone to give individualized affection to children. These findings highlight a need for special efforts to help both parents and teachers of disadvantaged children to become more accepting of the child's need for nurturance and to provide greater continuity between home and school. As has been noted, strictness, punitiveness, and inconsistency in child-rearing prevent the child from developing both inner controls of impulse expression and genuine rather than defensive autonomy.

Physical and psycho-social impairment in children impose different expectations, objectives and techniques on the part of the adult in interaction with the child. A discussion of these differences goes beyond the scope of this chapter. Special sources are available in the literature which discuss role and technique of caregiver and teacher dealing with handicapped children (see e.g., Beller, 1962; Kessler, 1966).

Application of the Proposed Conceptualization: An Illustration

Prescott (1965) and Prescott, *et al.* (1967), have reported a series of interrelationships between teacher behaviors in Day Care centers. I have reordered and summarized the many single relationships in Table I within the conceptual framework of role, style and technique presented here. When ordered in this way, two sets of related clusters appear. Child centered roles are associated with open-ended techniques

found in non-authoritarian, nurturant teachers. Adult centered roles are associated with directing and restrictive techniques found in authoritarian, cold and unrelaxed teachers. These reordered patterns are quite meaningful in the light of current personality and social psychology. They may also serve as an illustration of the potential utility of the proposed conceptualization of the adult's functioning in his interaction with a child.

TABLE I

Associated patterns of teacher roles, styles and techniques based on related teacher behaviors reported by Prescott (1965), and Prescott, et al., (1967)

<u>ROLE</u>	<u>STYLES</u>	<u>TECHNIQUES</u>
<u>Child Centered</u> Emphasizes:	<u>Non-Authoritarian</u>	
	Nurturant	
Consideration of Others	Warm	Encouragement
Creativity	Friendly	Suggestion
Experimentation	Sensitive	Approval
	Relaxed	
	Individual Oriented	
<u>Adult Centered</u> Emphasizes:	<u>Authoritarian</u>	
Physical Needs	Cold	Guidance
Conformity to Social Rules	Irritable	Restriction
Cognitive Skills	Rushed	Little Encouragement
	Uncommunicative	Little Praise
	Group Oriented	

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CHAPTER 9

PARENT INVOLVEMENT IN EARLY EDUCATION

Robert D. Hess, Marianne Bloch, Joan Costello, Ruby T. Knowles, Dorothy Largay

INTRODUCTION

One of the most significant features in the expansion of early education in the United States over the last decade has been the increase in parent participation and involvement in various cooperative educational and policy-making roles. The pressures and influences which stimulated the rise in parental involvement in their children's education came from two broad sources: (1) the persuasion of empirical data and theoretical argument from education and socialization research; and (2) direct political pressure for community involvement.

The arguments that led to the establishment of Head Start and other large programs of early education at the preschool level were, by their nature, almost inevitably applied to justify parent participation in educational programs. Perhaps the two most significant influences were the growing number of publications that discussed the importance of early experience upon subsequent cognitive growth and education achievement (Bloom, 1964) and general psychosocial development (Kagan and Moss, 1962) and a body of research and writings on the specific influence of home and maternal factors in the socialization of cognitive behavior in young children (Bernstein, 1961; Coleman, 1966; Hess and Shipman, 1967; Gordon, 1969). This research has emerged, in turn, from earlier studies of parent-child interaction and the apparent effects that parents have upon the development of aggression, compliance, and other patterns of behavior in children (Sears, Maccoby and Levin, 1957; Rosen and D'Andrade, 1959; Freeberg and Payne, 1967; Grotberg, 1969).

The argument of the salience of early experience carries with it the assumption that the mother and early home influences are likely to be particularly significant in shaping the experience to which the child responds. These conceptions of the family's role and of early experience, while by no means new, gained intellectual and empirical vigor and in visibility during the early 1960's. In a number of writings they were combined with the concept that was fundamental to the planning and establishing of programs of compensatory education during early stages of the education campaigns of the war against poverty. A compelling line of argument was developed for parent participation in early education programs. It contended that early experience affects subsequent intellectual and educational growth and achievement, and that children who grow up in homes disadvantaged by racial discrimination and poverty have a deficit of the experiences presumably essential for academic achievement in the public schools. Further, this deficit, which initially is the responsibility of the community and family, becomes cumulative during the pre-school and elementary school years. Therefore, compensatory programs should involve parents and assist them in providing a more adequate educational environment for their young

children. In view of our present knowledge about early experience in ghetto and low income homes, this view obviously is simplistic and in some aspects false. However, it provides a significant part of the motivation and justification for involving parents in their children's education.

Parallel to this line of argument, but not entirely consistent with it, was an influence that came primarily from social and political origins. One feature of the civil rights movement was a bitter and articulate criticism of the public schools, especially in urban areas. Criticisms concentrated upon the lack of relationship between the educational experiences offered by the school and the local community's cultural experiences and needs. The rise in ethnic nationalism -- as represented by Black Power for example -- combined with criticisms of the school to create demands for community control over educational policy and decision making in the schools and other institutions which serve the local community.

The recognition of the family's role in early cognitive development and the pressures for community control were reflected in guidelines of major federal programs such as Head Start and Follow Through, in which parent and community participation was mandatory.

The growth in parent involvement programs has been dramatic and seems likely to lead to consequences which were not altogether anticipated, either by the researchers who argued for parent involvement as an educational resource, or by those oriented toward communication who saw involvement and control as one way of expressing the needs for self-determination in ghetto neighborhoods. It was not widely recognized at the time that the rationale and points of view that underlay these two influences -- educational and political -- soon would come into conflict. There may be an inherent contradiction between the arguments that have to do with cumulative deficit and those which support ethnic pride and self-determination for ghetto communities.

In this chapter and the one that follows, we will discuss parental involvement in Day Care programs from the perspective of these two points of view. First to be considered will be parental influences upon the development of young children, parent involvement in early education, cross-age helping relationships, and the implications of both research and programmatic efforts for Day Care planning and practice. The following chapter will take an organizational perspective. The focus will be upon the implications of community power, ethnic nationalism, and other emerging social and political influences upon Day Care as an institution, and the impact of Day Care upon the family as a socializing and educational unit. Both chapters reflect, to a degree, the framework of assumptions and rationale that the proponents of the particular points of view described above have used in elaborating their positions.

THEORY AND RESEARCH ON PARENTAL INFLUENCES ON EARLY DEVELOPMENT

While it has been obvious for some time that parents influence their children's development, it is not clear what aspects of interaction between parent and child are relevant for understanding parental influence

on cognitive and emotional development of young children.¹ A knowledge of parental influences on early development, especially that which is relevant to specific Day Care populations, could provide a basis for planning and practice in Day Care facilities, as well as other early educational settings.

Parent-child research is subject to many methodological criticisms. Individual studies use slightly different variables and instruments, define their concepts, such as maternal warmth and independence training, in vague or noncomparable ways, and often fail to differentiate the effects of parental behavior upon boys and girls. Much of the earlier research which will be discussed has used white, urban middle class samples exclusively. Thus, generalizations to other ethnic and socioeconomic groups, especially those expected to be represented in Day Care populations, are limited.

The following are common categories of results which suggest that several global clusters of parental (largely maternal) behavior affect educationally relevant capabilities as well as affective and social development of children.²

1. Affective Influences on Cognitive and Emotional Development

a. Demands for Independence-dependence

Several studies have suggested that parents who train their children from an early age to be independent in thinking and action, while supporting early needs for emotional dependence, help their children toward the independence necessary for school success. Their children are usually high achievers (Rosen and D'Andrade, 1959; Crandall, et al., 1960; Chance, 1961).

b. Warmth and a Highly-involved Relationship Between Parent and Child

Evidence from observations and parent reports shows that maternal warmth, high emotional involvement and interaction, and general parental interest are positively associated with children's achievement (Milner, 1951; Rosen and D'Andrade, 1959; Bing, 1963; Baumrind and Black, 1967; Slaughter, 1968; Solomon, et al., 1969). One of these studies, however, shows that low income Black mothers, as compared with middle class Black mothers, may accompany their warmth and support for the child with negative attitudes toward both teacher and school (Slaughter, 1968).

On the other hand, overindulgence, overprotection, and actual intrusiveness by parents results in lowered reading and IQ scores after four years of age (Stewart, 1950; Bayley and Schaefer, 1964).

¹ See the Chapter by Sigel, et al. in this volume.

² For an extended discussion of parental influences on cognitive development and school achievement of children, see Hess (1969).

c. Restriction and Rejection in the Child's Home Environment

It has been frequently claimed that middle class mothers are more accepting and permissive about certain aspects of their children's behavior than low income mothers (Bronfenbrenner, 1958) but this assertion is disputed, especially in regard to its interpretation (Hess, 1970). Research shows that while early independence training helps the child succeed in school, parents who establish well defined limits for their children during later years facilitate their children's continuation of high school achievement (Drews and Teahan, 1957; Rosen and D'Andrade, 1959; Bing, 1963). Firmness or restriction during the early years would, on the other hand, encourage dependence and passivity (Baumrind and Black, 1967). One study of Mexican-American high school students, however, indicated that boys whose mothers were quite dominant were usually low achievers; girls, however, were high achievers in the same situation.

Implicit or explicit rejection by parents encourages independence-like behaviors in the child; often these children become high achievers (Steward, 1950; Brody, 1969). Independent behaviors of the child resulting from maternal rejection are accompanied by increased signals for approval, praise, and attention toward the mother (Brody, 1969).

Consistency of discipline techniques used by parents over time, and between parents, is important for independence and assertiveness in boys, and affiliation in girls (Baumrind and Black, 1967).

d. Parental Styles of Control

Studies concerned with the kind rather than the severity of control of child behavior show that control accompanied by explanation, requests, consulting, and giving reasons for discipline, are associated with increased responsiveness to children's needs and achievements (Kagan and Freeman, 1963; Kamii and Radin, 1967).

Bronfenbrenner (1958) suggested that middle class mothers are more responsive to inner states and have a more "democratic" accepting relationship with their children whereas working class mothers are more concerned with external standards of conduct and adherence to community norms. Several studies have identified the kinds of control that mothers use. Imperative-normative control (commands based on norms of groups or position within a family system) is typical among working class families. Middle class families tend more often to include control strategies based on either inner feelings of the child or approaches which emphasize the future consequences of given acts or patterns of behavior (personal-subjective or cognitive-rational) (Hess, et al., 1968). Observations in both home and laboratory indicate that mothers in low income families less often include explanations with their commands and more often give punishment for improper behavior than offer reinforcement for good behavior (Kamii and Radin, 1967; Bradshaw, 1968).

2. The Intellectual Relationship Between Parents and Children

a. Parental Influence in the Socialization of Mental Abilities

Studies in cognitive socialization among different ethnic groups in New York and Boston found that both social class and ethnicity have strong and varied effects upon performance on tests which covered four different mental abilities (verbal, reasoning, number, and spatial conceptualization) (Lesser, et al., 1965; Lesser and Stodolsky, 1967). Ethnicity seems to affect the pattern among mental abilities. The results showed a very different pattern of scores for each ethnic group studied. Furthermore, the social class variations within the ethnic groups did not alter the basic pattern. In verbal ability, Jewish children scored high, Blacks average, and Puerto Ricans lowest. In spatial conceptualization, Chinese children exceeded all other, whereas Black children were relatively low on this and numerical tasks. These results tentatively suggest that there are subtle variations in the patterns of parent-child interaction across ethnic groups, which are associated with differences in the pattern of mental abilities. However, there is no direct evidence to support this supposition at present.

Recent research in infant development suggests that parents begin to influence the cognitive development of their children from birth. The mother's touching, looking, smiling, holding, and manner of talking influence the infant's behavior in ways which are important for cognitive development (Lewis, 1965; Rubenstein, 1967; Lewis and Goldberg, 1968; Moss and Robson, 1968; Goldberg and Lewis, 1969).

b. Parental Expectations and Attitudes Toward Success and Competence

Just as patterns of interaction in the home can shape children's mental abilities, so can parents' expectations, attitudes, and values influence their children's behaviors and the formation of the children's own expectations, attitudes and values. A mother's high aspirations for her child and pressure on him for school achievement influence the child's motivation to achieve, as well as his actual achievement (Rosen and D'Andrade, 1959; Bing, 1963; Wolf, 1964). Expressed satisfaction with the child's level of achievement reinforces the child's further achievement efforts (Rosen and D'Andrade, 1959; Crandall, et al., 1964). If a parent has high expectations for his child, it is evidenced by greater participation in his child's work at home (Kagan and Moss, 1962; Katkovsky, et al., 1964).

Several studies show that low income mothers value achievement highly (Mannino, 1962; Coleman, 1966; Hess, et al., 1968). However, there are indications that many Black mothers, and probably those of other ethnic-minority groups, feel a sense of powerlessness regarding their ability to help their children achieve in school (Kamii and Radin, 1967; Hess, et al., 1968; Slaughter, 1970).

Feelings of "futility" in the role mothers play in the education of their children appear to be a necessary but not sufficient explanation of many Black children's poor achievement (Slaughter, 1968). While maternal membership in community organizations and feelings of control or power in the schools increases children's achievement (Hess, et al., 1969), it is necessary to examine other experiences of children that might account for differential abilities for school achievements.

c. Influences on Children's Self-concept and Sense of Efficacy

Associated with Intellectual Development and School Achievement

A child's self-concept and sense of control over his environment accounts for more variation in achievement in grades nine and 12 than other family background or school characteristics (Coleman, 1966). There has been very little study of parental influences on self-concept and sense of control. It appears, however, that parental acceptance of the child, firm and clear regulation in the home, parental respect for individuality and high parental self-regard all foster positive self-esteem in children (Coopersmith, 1967; Sears, 1970). Belonging to a large family or being born in later ordinal positions increases the possibility that the child will have a poor self-concept (Sears, 1970).

With respect to locus of control, an individual is described as "internal" or "external" according to the "degree to which he perceives that the reward follows from or is contingent upon his own behavior or attributes versus the degree to which he feels the reward is controlled by forces outside himself and may occur independently of his own actions" (Rotter, 1966).

Maternal babying, protectiveness, affection, and approval increase the young child's internal sense of control over his environment. A father's positive and negative reactions to his child's behaviors encourage or discourage, respectively, the child's sense of internal control; mother's praise and criticism have little effect (Katkovsky, et al., 1967; Davis and Phares, 1969). There are conflicting results as to whether there is a relationship between parents' own sense of control over rewards and their child's feelings of control (Davis and Phares, 1969; Hess, 1969). Davis and Phares (1969) found that fathers of children with greater internal control believed that parents should be indulgent while allowing the child to be self-reliant and independent; their wives, however, did not share these beliefs. Opposite views were held by parents of children who felt less control over the environment.

d. Relationship Between Verbal Ability and Opportunities for Verbal Interaction in the Home

There is a significant relationship between a child's verbal ability and opportunities for verbal interaction in the home. Opportunities for conversations at meal time or other times, parental efforts to enlarge the child's vocabulary, and less use of punishment of poor speech relate to high verbal ability (Milner, 1951; Bing, 1963; Wolf, 1964). Other important factors are provision of resources for children such as toys, books, play space, and opportunities for self-initiated play (Milner, 1951; Bing, 1963; Wolf, 1964; Honzik, 1967; Kamii and Radin, 1967; Hess, et al., 1968; Moore, 1968).

It is assumed that there are differences in quantity and quality of verbal stimulation of children from different social classes and ethnic groups which influence cognitive development. Recent research has shown that low income Black and bilingual families may be highly verbal and use complex speech patterns (Labov, et al., 1968). Some difference in patterns and modes of linguistic exchange between members of different social classes do appear, however (Cazden, 1970).

e. Maternal Teaching Behaviors

Several recent studies have looked at the strategies by which a mother helps her child learn or perform a task. In one instance, for example, a mother may help her child focus his behavior at the beginning of a task. She can also enhance learning by specific feedback, giving more positive than negative reinforcement, and modeling correct behavior by accompanying it with explanations (Hess and Shipman, 1967; Bee, et al., 1969; Busse, 1969; Brophy, 1970). These studies have shown that lower and middle class Black mothers give less positive feedback, fewer suggestions in the form of subtle questions, and spend less time in interaction with their children during problem solving sessions than lower and middle class white mothers. Low income white mothers give more negative feedback than low income Black mothers, or middle class mothers of either race (Bee, et al., 1969; Hess, et al., 1968). Middle class Black mothers seem to spend more time in task orientation and explanation and in focusing their children's actions than Black mothers from low income homes (Brophy, 1970). In a replication of Hess' Block Sort Task, lower income Spanish surname mothers in San Francisco responded to their children with more negative feedback, and had a stronger emphasis on physical response than their middle class counterparts (Hubner, 1969).

3. Influence of Maternal Employment and Father-Absence on Cognitive Emotional Development

Children in Day Care are separated from either the father, mother, or both during most of the day. As with other separations, employment creates its own patterns of influence.

Although there is much evidence on the deleterious effects of long-term maternal separation or deprivation in the case of institutionalized children (Bowlby, 1958), there is little indication that maternal employment has harmful effects on either the cognitive or emotional development of children. Moore (1968) found that English middle class children who had had daily substitute care from age two-and-one-half until five years showed little difference in I.Q. or achievement at age eight years.

The effect of maternal employment on children varies with the mother's attitude about working and her desire to work (Hoffman, 1959). Working mothers who dislike their work have reported less power over their children and more independent actions on the part of their children toward them than mothers who like their work. In peer group interaction, their children show less impulse control, use physical force more often, and respond to frustration in nonadaptive ways. However, mothers who like their work are relatively higher on affect toward their children, use milder discipline, and impose less household tasks on their children; their children are less assertive and less effective in social relations.

There is little research available on the effects of father-absence because of employment, other than those dealing with prolonged times away from home. Father-absence is often ambiguously defined, and hence the results are difficult to interpret. One study sheds some light on the effects of variations in the father's employment patterns on girls. Girls whose fathers never worked on night shifts or whose fathers worked on

night shifts after their daughters' ninth birthday had higher college entrance scores than girls who either had no father or whose father worked on night shifts before age nine (the latter two groups did not differ) (Landy, et al., 1969). In their review on the effects of father-absence on boys, Herzog and Sudia (1970) note that father-absent boys usually show a ratio-reversal on the usual verbal quantitative ratio in aptitude test performance, and do better in verbal than the quantitative section. Typically, boys score higher on the quantitative section.

In a national sample, Coleman (1966) found that father-absence accounted for little of the variance in achievement among Black children. However, for other minority groups -- Oriental-Americans, Mexican-Americans, Puerto Ricans, Indian-Americans -- father-absence was an important source of variance in school achievement relative to other home background variables studied. In another study, Hess and his associates (1969) presented evidence that father-absence may have a cumulative effect on school performance of Black children which does not appear during the pre-school years, but during the primary grades.

From our discussion, it is evident that the effects of decreased interaction with either parent because of employment is an area of research which has neither been well defined nor explored. From available research, it is impossible to determine what specific variables are present or absent when parents work and hence to establish relationships between these variables and behavioral outcomes in the children.

4. The Family as a Unique Influence in Early Development

The advent of Day Care on a national scale has implications for the family's existence as the major agent of socialization during the child's early years. There is little research on the question of whether the extensive use of Day Care in the care taking and education of young children will diminish the individuality of personality and culture now transmitted to children through their families. If we are to continue to value the "uniqueness" of each child, it seems even more important to have Day Care staff work closely with the parents so that extra-familial care can incorporate some of the individuality of each parent-child pair.

A related area of concern for Day Care personnel deals with the development and maintenance of attachment between parents and child when the child is in Day Care many hours of the week. Recent writing (Ainsworth, 1969; Bowlby, 1969; Maccoby and Masters, 1970) stresses the importance of attachment for the child's total cognitive and emotional development.³ Attachment is formed primarily through the amount of emotional interaction between the attachment figure and the child. It depends on more than simple care taking, and is usually formed by the end of the child's first year, although this may occur at a later time. Infants may be "attached to" several people; however, there usually is one person to whom attachment is strongest. This is typically the mother because of the amount of time she spends in interaction with the infant during the first year. Infants who have a strong principal attachment are later attached to a greater number of other adults than infants who have weaker principal attachments.

³ For further discussion, see the Chapter by Sigel, et al., in this volume.

In addition, children who are not attached to a primary figure usually have difficulty with socio-emotional development in later years (Bowlby, 1969).

Several studies point to the importance of attachment between caretaker and child for cognitive and emotional development. Proximity to the mother encourages exploration of the environment. If children are alone or with strangers, they usually are inhibited in their exploration (Arsenian, 1943; Cox and Campbell, 1968; Rheingold and Eckerman, 1969; Ainsworth and Bell, 1970; Bell, 1970). Learning through modeling and social reinforcement is increased as a function of the child's emotional attachment to the model or reinforcer. Also, the effect of the model or reinforcer increases if the child perceives him to have a high degree of competence, status, and control over resources (Bronfenbrenner, 1970). Since parents usually develop this combination of emotional bond and status in the eyes of their young child, they seem to be in a unique position to foster his development. However, the extent to which other caretakers develop this combination of love and status would determine how effectively they provide a secure learning environment for the child.⁴

Other research highlights the desirability of one-to-one relationships for cognitive development during infancy (Piaget, 1952; McCarthy, 1954; Gewirtz, 1969). These findings give tentative support to the conclusion that early development is fostered by a high frequency of contact involving a small number of adults.

Bettye Caldwell and her associates (1970) designed a research-oriented Day Care center in which each infant would have high frequency of contact with a few caretakers as possible. This plan was not entirely feasible because of high staff turn over. However, an analysis shows that children who have been in Day Care from age one to two-and-one-half years exhibit no difference in attachment behavior toward their mothers than a comparable sample of children reared entirely at home.

Research from the Israeli Kibbutzim is also relevant. As Hava Gewirtz noted in an earlier chapter, the collective rearing of children does not preclude strong attachments between children and parents. However, attachments are also formed with the nurse. This becomes important when the nurse is replaced; the resulting discontinuity in caretakers during the child's daily life exposes the child to different personalities, attitudes, and in some cases, conflicting socialization techniques. The re-adjustment period usually is more difficult for very young children (Spiro, 1965). Thus, many Kibbutzim recently have begun to keep the same nurse with children from the time they leave their mothers (six months) until they are four years old.

From our brief discussion of the attachment literature, there are several implications for Day Care:

- (1) The formation and maintenance of primary attachment is necessary for optimal emotional and cognitive development. Therefore, it is important that nothing should interfere, if at all possible, with the child's ability to form a primary attachment.

⁴ For a comprehensive discussion of the "Potency of Models," see Bronfenbrenner, (1970).

- (2) Ideally, caretaking responsibilities should not be shared by many adults. Children up to ages five to six, but especially those under 12 months of age, need consistent figures with whom attachment can be formed and maintained, and a stable pattern of socializing and educational techniques.
- (3) Infants who have not yet developed a stabilized primary attachment should be provided with the experiences which would facilitate this -- either in the home or Day Care setting. If a primary attachment has been formed and stabilized, this attachment will not be diminished by the amount of time spent in the Day Care center.
- (4) For children who have weak or insufficient parental inputs and attachment, the caretakers can supplement the parent and optimize the total development of the child.
- (5) Attachment to peers and adults other than the principal attachment figure can enrich a child's cognitive development by providing him with multiple models and thereby increase his reactions to and attitudes about complex situations. This is relevant only if a child can differentiate among the values, attitudes, and behaviors of different models.

PARENT INVOLVEMENT IN EARLY EDUCATION PROGRAMS

1. Assumptions and Rationale of Parent Programs

Like other programs designed by middle class professionals to meet the needs of minority and low income groups, programs of parental involvement are based on conceptions of the social, cultural, and educational world in which families live and with which they interact. In one sense, these conceptions represent an implicit hypothesis of the nature of the educational problem and the point of the system which most needs to be changed, and thus they contain implications for the type of program which would provide a remedy. Many of the programs of the past decade have been based on the assumption that the educational system essentially is sound and that the greatest energy should be expended in helping families and children orient themselves successfully toward the school. Many of the program policies, procedures, and curriculum are built upon this cluster of assumptions.

Several implicit or explicit models of how experiences of being disadvantaged affect the educational attainment and capabilities of young children may be found in various forms in the literature of the last decade.⁵

a. The Deficit Model

One conception of the educational problems of the low income child is that he has not had many of the experiences which confront a middle class child during his pre-school years and which help to prepare him for successful entry into the public schools. This leads to the

⁵ For a more detailed description of the models presented here and their assumptions, see Hess (1969) and Gordon (1969).

belief that the poor child is deprived, that his home denies him the cognitive input needed for adequate growth, and that he is behind his middle class peer in accumulating the information and skills needed for successful classroom work. Thus, he is unable to deal successfully with early school tasks and finds himself getting farther and farther behind in a cumulative deficit pattern. It is obvious that a conception of this kind would lead to remediation programs for the child and to educational programs for the mothers.

b. The Schools-as-failure Model

In contradiction to the deficit model is the view that the locus of difficulty is in the school and the school curriculum and the staff. From this standpoint, the problem is not so much within the child as in the schools' inability to deal adequately with the child's resources. The school is challenged as irrelevant, the teachers as unsympathetic and uninformed. The description of the problem changes from the "culturally deprived child" to the "educationally rejected child." The locus of blame lies clearly upon the institution which has failed in its responsibility to meet the community's educational needs. The emphasis on innovative programs is toward teacher training and re-training, toward increasing the sensitivity of the teachers and their knowledge about the child's culture and his resources, on curriculum changes, and mutual communication between the community and school. There is also a focus on the role of community persons as teaching personnel in the hope that greater participation will produce reform.

c. A Cultural Difference Model

Another view of the educational problems of the minority child is that he has a learning experience which, although not deficient, differs from that of his middle class peers and the assumptions upon which schools are based. He has grown up in a culture which has its own language, traditions, and strengths. The essential educational problem is one involving the difference between this culture and the one offered by the school. Proponents of this view believe that education should accommodate to cultural pluralism and that the curriculum should be adapted to include the need to transmit the community's culture to the young child.

d. A Social Structural Model

This fourth point of view defines the problem in terms of general social processes. From this perspective, the behavior of individuals in a social system is related to their status, to the prestige and position they occupy and to societal demands and expectations of them. The mother's interaction with her young child is a reflection of the societal demands and expectations. The mother's interaction with her young child is a reflection of the society's treatment of her and her family, and these modes of interaction eventually may have educational consequences. Consequently, there is little to be gained from attempting to change individual children through remedial efforts unless there also are programs intended to change the social structure in which the family lives, since this structure establishes cultural and community values. Programs which emerge from

this approach are much broader in scope and deal with policies affecting communities rather than individuals.

2. Roles Parents Play in Early Education Programs

Parents play many different roles in early education programs, and it is conceivable that they may assume one or more of these roles at different times depending upon the program structure as well as personal and situational demands. As we see it, there are five different roles parents play in early education programs which can be identified and described along a continuum of involvement in educationally relevant activities.⁶

a. Parents as Supporters - Service Givers - Facilitators

First, parents may plan a supportive and facilitative role in relation to the teachers and the school. Typically, parents contribute services in the forms of clerical, custodial-maintenance work to support the nonacademic functioning of the school. They may engage in fund raising activities, form baby sitting services for visiting parents, and assist in the preparation of food served at the school. In order for parents to learn about the staff and program, the staff may sponsor annual family nights or tours and/or group discussions for the purposes of informing parents about their responsibilities and roles as parents.

In all these activities, parents are typically in the roles of observers and bystanders and are uninvolved in activities which have a direct effect or relationship to their children's education.

b. Parents as Learners

Second, parents may be involved as learners. Usually, the purpose is to improve parental skills and abilities so they can enhance the quality of family life for the child. Parents may attend formal education classes in child development, general education, or home management as is required in California cooperative schools. They may attend meetings to discuss problems of child-rearing.

Parents also may be involved in observing their children in the classroom, followed by a discussion of their observations with teachers who explain and interpret the child's behavior. During these parent-teacher conferences, the teacher may explain principles of child development, techniques for responding to the child in the home, and materials to use in the home to stimulate cognitive development.

In all of these activities, parents play the role of learner, and the school (in the form of a teacher, psychologist, teacher aides, social worker) is the expert or teacher. It is assumed that as parents learn to be better parents, they will positively enhance the development of their children.

⁶ For a similar discussion of types of parent involvement in compensatory programs, see Gordon (1969).

c. Parents as Teachers of Their Own Children

Third, parents may be involved as primary teachers of their own children, usually in the home. Mothers are trained to stimulate, to reinforce, and to support their child's cognitive development. The home visitor or teacher comes to the home with materials and toys and attempts to provide a model which the mother can imitate in her interaction with the child. The teacher may explain the purpose of the activities and how they relate to the child's development and how materials can be used in various ways with the child. In many programs, parents are taught to praise their children, stimulate their exploratory activities, and to use various control and language strategies (e.g., Weikart and Lambie, 1969).

In this role, the parent is both a learner and a teacher who is involved in a one-to-one relationship with the child. While some outside agency (e.g., the program, teacher) is still assumed to be the expert, parents are involved actively and directly in changing their behavior to affect positively their children's development.

d. Parents as Teacher Aides and Volunteers in the Classroom

Parents may serve as paid teacher aides or volunteers in the classroom setting. Usually, this is seen as a program component which offers opportunities to low income families to upgrade their employment levels and sometimes as a step to new careers in education.

Parents may supervise small groups of children, help teachers with preparation of materials, read stories, and implement other goals of the educational program. In some programs, parent teacher aides may train other parents to work as future teacher aides.

e. Parents as Policy-makers and Partners

Fifth, parents may be involved as policy-makers who, in partnership with the school, can affect educational policy and thereby their children's development. They may take part in the planning, operation, and overall evaluation and direction of the program. In the Head Start, Follow Through, and Parent Child Center programs, parent participation in policy making is mandatory. For example, in Head Start, parents establish the criteria for staff selection, hire nonprofessional staff, and plan activities for the children and parents in the center. In other programs, such as the Coperativa De Ninos (Children's Cooperative) in Chicago, the center is totally parent-controlled and staffed. Professionals act purely as resource personnel.

The rationale for parent participation in decision-making is based on the belief that people will not be committed to decisions in which they had no involvement. Furthermore, it is believed that the processes of considering information, decision-making, and implementation are, in themselves, educational and aid in developing leadership skills. It also is argued that parents know their own situation best, and hence must be involved in planning for their children's education.

In planning for parent involvement in Day Care programs, the various roles parents can play will depend upon a number of factors, including program goals, assumptions about parents and children, local and organizational settings, ethnic and cultural factors, the developmental needs of children, and so forth. For example, in parent cooperative schools, parents play many roles at different times. They are involved in the administration of the school, are required to participate regularly as aides in the classroom, and in many cases must attend adult education classes. In other programs such as the home instruction, parents function almost exclusively as teachers of their own children.

3. Evaluation of Programs

Efforts to evaluate most of the existing programs which implement the various parental roles discussed above are concerned primarily with the child's cognitive development and fostering positive parent behaviors and attitudes toward education. Evaluation procedures vary from program to program. In general, children are administered the standard tests of intelligence (e.g., Bayley Infant Scales of Development, Peabody Picture Vocabulary Test, and Stanford-Binet) at specific time intervals, typically before and after participation in the program. In addition to these tests, a variety of standardized and nonstandardized instruments are used to assess social and emotional behavior and language development.

The evaluation of the programs effects on parents is highly descriptive and generally based on informal evidence, such as anecdotal reports and testimonials. In addition, various measures of mother-child interaction are made using tests and procedures developed by individual researchers, as well as written reports of home visits which describe the mother's use of program materials, the quality of participation, and mother-child interaction (e.g., Gordon, 1969). Attendance records sometimes are used to determine the stability of involvement in the program, as well as ratings of levels of participation during group discussions (Badger, 1969). More promising attempts are underway to develop instruments to measure the impact of intervention programs on adult attitude change and behavior (Stern, et al., n.d.; Hanson, et al., 1968).

The wide variety in program inputs as well as evaluation procedures makes it difficult to draw definitive conclusions about program impact. It is virtually impossible, at this time, to speak clearly about curricula, settings, intensities, durations, or specific characteristics of program inputs which may be associated with long-or short-term effects. The following are tentative conclusions representing the state of our knowledge:

- (1) Programs which attempt to involve parents as primary teachers of their own children appear to have positive effects on the cognitive development and achievement of their children (Klaus and Gray, 1965; Weikart and Lambie, 1967; Gordon, 1969; Levenstein, 1969; Karnes, et al., 1970). These effects appear to spread to other siblings and to children in the neighborhood who are not involved in the program (Klaus and Gray, 1965; Miller, 1968; Gordon, 1969), although it is difficult to identify the factors which led to these effects.

Little evaluation has been done on the impact of programs on aspects of children's noncognitive development, partly because of the underdeveloped state of instrumentation in this area.

- (2) Participation may have some impact on the development of competence and self-esteem in the parents involved (Miller, 1968; Scheinfeld, 1969; Badger, 1970). It can be noted that these programs actively engage and involve parents in teaching their own children while emphasizing respect for their potential worth as individuals and confidence in this potential for continuous development. None use psychotherapy or counseling techniques and formal lectures, but each has attempted in some way to provide models for imitation, to provide support for the parents' problems and concerns in all aspects of family life, and to express a firm commitment to self-determination and the elevation of self-esteem.

Parents involved in Head Start programs express a strong positive attitude toward their child's experience in the project. They feel that Head Start had a positive impact on their own lives, through means of providing opportunities to make new friends, engaging in more activities outside the home, reading more, and getting assistance from a social agency (Westinghouse Learning Corporation, 1969).

4. Involving Parents in Early Education and Day Care Programs

Because communities differ in life-styles, each particular school-community setting needs to be evaluated before methods of parent involvement are determined. Factors such as ethnic group values, family patterns, the number of mothers working, whether the community is migrant or resident, and the physical setting will prove to be important to the needs of such programs. The evaluation process should be conducted in collaboration with community representatives.

Most of the innovative projects appear to follow a number of general principles in establishing and continuing cooperation with parents which are applicable to Day Care programs.

There are, however, several obstacles to successful parent involvement. One is that the parents and teacher often have images of one another which are not conducive to cooperation. Both, for example, may feel unwelcome -- the mother at school and the teacher in the home. The teacher may be viewed as less helpful and interested in the family than she really is, and the school staff is likely to underestimate the mother's strong desire to be involved with her child's education. Another hazard is that the family and community may come to expect more from this contact than is realistic and may eventually be disappointed. Further, a relationship which is established by one teacher may not be continued by another if she leaves. Teachers are usually not experienced or prepared for working with parents, and their successes are often a result of personal charisma, confidence and openness. Parent participation in the schools is a form

of social commitment on both sides and deserves care and attention. It is one thing for both sides to want involvement, and quite another for either to know how to develop a workable arrangement.

a. Steps in Engaging Parents

1) Initial Contact with Parent

The importance of the step of initial contact is recognized in virtually all programs, many of which learned its importance from harsh experience. Very often the school takes the initiative in establishing the relationship, especially since there has been an emphasis on parent involvement programs in communities where parents have not felt free to participate. The impressions which the school initially create about the program and the motivations of the staff may influence the level of participation of both sides and the program's success. Many experienced personnel believe that the most effective means of contacting parents is a home visit, preceded by arrangements made by note or telephone. Other program directors prefer to invite parents to an open house and to follow this social event with a home visit. The courtesies appropriate for visiting a home, as well as the exact procedures, vary with the cultural values of the community. Fathers in Mexican-American families, for example, play a strong role in decisions affecting the wife and children, and they are likely to want to participate from the beginning. In other communities, the father's participation and interest may be difficult to obtain if child-rearing is exclusively concerned with the mother's role.

The home visit not only gives the teacher a more personal contact with the family and home but also expresses to family members the school's interest in them. The personal interchange enables the teacher to meet the mother on social terms and interact with her on a more personal level. This is an important step for many low income families whose contact with the school is typically over behavior problems and criticisms of their children. Perhaps the most important objective of the initial visit is to begin to change the attitudes of mistrust and caution to those of trust and openness. Skills in clear and sensitive communication are essential in order that both parties understand each other's intentions. It may be useful to emphasize that the school and parents are working collaboratively toward a mutual goal -- the education of the child. Through these visits the mother realizes she is wanted and needed in the program, and she feels less ignored and uninformed. In some programs, home visits are made by community members. This strategy has been successful, since they can anticipate the parent's reaction and establish rapport more easily. Frequently several home visits are necessary to establish trust and cooperation. However, the patience and understanding required is well worth the effort since the home visit is the most effective method of contact (Scott, 1964; Lane, 1968).

2) Incentives

All parent education programs offer incentives to encourage participation. Perhaps the most effective psychological incentive is the mother's interest in her child and her concern about the enhancement of his cognitive growth. Another psychological incentive is the experience which increases the mother's understanding of her child and helps her

develop effective ways to deal with him..

Few programs offer financial incentives in the form of pay for involvement, and these may cover little more than the mother's expenses for joining the program (babysitting and transportation) unless she is employed as a teachers' aide (Lane, 1968; Badger, 1970; Levenstein, 1970). Parent participation in teaching, of course, does provide opportunity for the mother to upgrade her employment since she eventually could be employed as an aide or teacher.

The incentives mentioned are applicable to the Day Care center, but are insufficient in the case of working mothers. For instance, parent involvement is possible during the day in the classroom only for mothers with flexible working schedules. The majority of employed mothers, however, do not have this advantage and cannot participate unless there is some change in the present work schedules. It may be possible for a Day Care center operated by a corporation to arrange time for employees to participate regularly in the program. Also, provision of babysitting facilities after hours and meals for the mother and child enables the mother to participate in some education programs or as a member of a policy-making committee. These are arrangements which would enable employed mothers to participate in their children's education.

b. Sustaining the Parent's Interests

Once parents are engaged in a program, the difficult task of sustaining their motivation remains. In a successful program, the mother's interest in her own contribution to her child's education and the positive experience she gains in enhancing it may be sufficient to maintain participation. Her motivation is strengthened by feedback from the school about her child's progress. For example, one Day Care center invited mothers before or after school to have coffee while discussing their children; nearly all the mothers responded and continued to attend the informal meetings throughout the year. If parents are involved in policy-making, they must see concrete results from their efforts; otherwise, they feel ineffective and lose interest.

Other sustaining incentives include new social relationships and a curriculum geared to enhance the mother's personal growth. The teacher's genuine and constant interest can create a new and influential relationship. Badger attributes her 80% attendance record (Badger, 1970) to the teacher's persistence and interest. For instance, the teacher may make a special home visit to inform the parent of the events of a meeting the parent missed and to encourage future attendance. Other participating mothers may form a cohesive group which tends to promote mutual interdependency and support that sustains the group over time. Some programs provide cookouts and field trips for the parents which broadens their circle of friends. Several provide a special curriculum, such as a career development component, which expands the parents' personal interests. Other projects provide courses to improve the homemaking skills of the mother (e.g., cooking and sewing). Such social and personal growth components can be incorporated easily into Day Care programs.

AN ALTERNATIVE TO PARENTAL INVOLVEMENT: CROSS-AGE HELPING RELATIONSHIPS

The application of experience and knowledge of parent involvement programs to Day Care will vary with the circumstances of families in the program. Presumably, when Day Care is offered at low cost to non-working mothers, there might be some point in establishing programs in which parents are encouraged actively to prepare their children for primary school. However, in programs which serve working mothers, particularly those employed in jobs demanding significant physical labor, utilizing mothers as teachers is much more difficult because employment leads to constraints on the mother's time and energy. In such instances the involvement of other family members, especially older siblings, might be particularly useful. Cross-age tutoring models thus offer an alternative means to serve the child, benefit older children in after-school programs and free the mother's evening time for affective and social interaction with her child. Cross-age helping relationships deserve consideration as potential resources for the school and family in Day Care programs.

1. Cross-Age Helping Relationships

In recent years, educators have experimented with ways to bring younger and older children together under conditions which will offer them pleasurable and productive learning experiences. These programs have been described as helping relationships (Thelen), cross-age teaching (Lippitt), interage classrooms (Yerry), and tutoring programs of one kind or another.⁷ All of these programs share a common concern with bringing older and younger children together to facilitate the learning of concrete skills and with developing helpful interactions. Many of the program's proponents are as concerned with broadening the social and interpersonal learning experiences as they are with academic achievement.

Cross-age helping programs thus far have been concerned primarily with elementary and high school students who focus on academic skills with their tutees. While a tutoring focus may be adaptable to Day Care centers serving school-age children, the notion of helping relationships has broader implications and can be extended in a number of ways to increase individual attention for all children in group care. For older children, helping relationships provide experiences in supervised child-care and offer both older and younger children the chance to learn from and enjoy one another's growth as persons.

2. Cross-Age Research

While the research findings reported by various programs document the effectiveness of cross-age relationships in improving academic achievement, school attitudes, and self-concept, one is led to conclude that the research findings are pale when compared with the enthusiasm of older and younger participants, teachers, parents, and administrators. On the whole tutors, tutees, parents, and teachers have reported that tutoring programs are

⁷ See Appendix I at the end of this chapter for more complete information.

effective. Despite these testimonials, Rosenshine and Furst (1969), in reviewing tutoring research, found that only half of the projects studied reported a significant impact on achievement. Moreover, none of the projects which included affective measures reported affect changes; however, affective measurement is not well developed, and such results are difficult to interpret. None of the tutor characteristics studied had any impact on success, i.e., level of achievement, intelligence, etc.

The research dilemma may be stated from at least two perspectives:

(1) the discrepancy between testimonials and data may reflect the impact of tutoring experience on some variable or process which has not been clearly identified; or, (2) the effects of tutoring on the variables being measured may be delayed rather than immediate, and the testimonials may be a clue to the impact, which may later show up as sustained gains. There is no way at the present to lend support to either of these speculations.

3. Why Should Day Care Include Cross-Age Helping Relationships?

In our view, there are two major advantages in including cross-age helping programs in Day Care centers:

- (1) All children can use more individual attention than caretakers can provide. Through cross-age relationships, both younger and older children can receive additional attention to satisfy their personal need for recognition and to enhance their feelings of self-esteem.
- (2) As older children learn more about younger children, they learn more about themselves. They also have a better understanding of adult roles, especially those of helping and teaching, and are better prepared for later parenthood.

4. Practical Considerations

The utilization of helping relationships between older and younger children in Day Care centers depends on a number of factors, such as the population served and the available physical facilities.

a. Day Care Populations

While in the past Day Care centers generally have served pre-school children, there is increasing recognition of the need for after-school and before school care for children whose parents are unable to provide for their care during non-school hours. In any community where Day Care is needed, the children who must be considered include a wide age range. The age range depends in part on the availability of recreational programs or extended school day programs, as well as on local customs and attitudes which determine the age at which children are considered "responsible" for their own supervision during daytime hours.

b. Physical Facilities

To facilitate the development of optimal cross-age helping

experiences, it would be useful to locate new Day Care centers within or adjacent to schools, recreation centers, churches or factories, etc., in order to allow maximum flexibility in the use of space and in the assignment of children. By so doing, it is possible to draw from a larger population of older children as well as siblings. In the case of schools, it would be advisable to introduce cross-age programs into the curriculum during the regular school hours and to maximize opportunities for learning about younger children and helping roles, while simultaneously offering individual attention to Day Care youngsters.

SUMMARY AND IMPLICATIONS

Our previous discussion has several implications for parent involvement in Day Care programs:

1. Parents are not likely to be involved in programs when their life conditions demand that time and energy be primarily focused on meeting noneducational needs, such as adequate housing, clothing, food and so forth. In order for fully employed parents to participate, there must be relevant incentives built into the programs which would allow them to participate, if they so desire, without excessive loss of time and energy.

2. The recruitment and continued involvement of parents is a difficult and arduous process. Staff persistence and commitment is crucial to success. It appears that when parents feel genuinely involved and have a self-determined part in ongoing activities, they are likely to continue to participate and to initiate activities.

3. There is a trend in parent involvement programs to move from passive roles, where parents are recipients of aid and information, to more active roles in which parents act as teachers aides, decision makers, and teachers of their own children. This trend probably is a function of the increasing awareness and experience of workers in parent education that information dissemination and attitude change oriented programs have dubious impact on parents and children, unless they are used in connection with active and direct involvement of parents in the education of their children.

4. The involvement of parents has definite implications for the teacher's role. Traditionally, teachers have been child oriented and have attempted to attain autonomy in the classroom with little interference from and interaction with parents. Parents have been viewed as competing agents of authority and respect.

Based on their home instruction program, Weikart and Lambie (1969) have reached a number of conclusions about the role of the teacher in the home: (1) the teacher should assume a position of low power; (2) should provide immediate evaluation of teaching; and (3) be able to adjust to economic and social differences. The power and functions of teachers working in the classroom with parents changes with: (1) the availability of other adults besides the teacher in the classroom; (2) the supervision exercised by the mother over the teacher; and; (3) the differences between teacher and parents in style and orientation toward the children.

It is essential that teachers and parents be involved in training that will give them some basis of cooperation and coordination once they are together in the classroom. Teachers must learn to be responsive to parents' questions and concerns, and to be genuinely interested in and committed to the growth and development of parents as well as their children.

5. We need to understand the effects of intervention into family life and its implications for programs which can successfully involve parents in their children's education. It may be that fathers will be involved differently than mothers and in ways which respect their feelings of what are appropriate masculine behaviors (e.g., Tuck, 1969). Furthermore, Day Care planners should be alert to the changing needs and growth of parents and children as they participate in intervention programs. For example, how do we move parents from "supporters" to "teachers of their own children," when and if they so desire? Flexibility and sensitivity to emerging needs is required in any kind of programmatic planning.

6. Finally, the concern about the impact of early education institutions upon the nature and structure of the family has implications that go well beyond socialization and educational issues. In the sense that the family and the school perform similar functions in child care for the very young, they can be seen as "competing" agents of socialization, each attempting, whether intentionally or not, to shape the child's behavior toward a desired cluster of value and activities. As institutions of early care and education, it seems possible that the teacher will begin to play the role of expert vis-a-vis the mother in a range of child care activities that include more than the customary educational concerns. The image of the mother's role as the most effective, and therefore the best teacher and socializing figure in the child's life may be weakened by new institutions which not only offer in many ways the care provided by the mother, but presumably supply it more efficiently and effectively. A teacher becomes, in effect, the expert and may be seen in many instances as representing a governmental agency with access to special information and expertise. Since this system assumes responsibility for the child, it will certainly have effects upon the mother as an individual and upon her role in the family. The impact of the system thus deserves careful study, both because of its long-term implications for society and because of the educational needs that may be created by these fundamental shifts in institutional structures.

APPENDIX ICross-Age Tutoring ProgramsExamples of Program Models

Kohler, Judge Mary

Clearinghouse for Cross-Age Programs
 National Commission on Resources for
 Youth
 36 West 44th Street
 New York City 10036

Lippitt, Peggy

The Cross-Age Helping Program Center
 for Research on Utilization of
 Scientific Knowledge
 University of Michigan
 450 Center City Building
 Ann Arbor, Michigan 48108

Lippitt, Peggy

The Community as the Preschool of the
 Nation (A design for a neighborhood
 preschool process.) Mimeo paper,
 available from above address.

Mainiero, John

Cross-Age Teaching
 Ontario-Montclair School District
 P.O. Box 313
 Ontario, California 91762

Thelen, Herbert A.

Helping Relationships
 Department of Education
 University of Chicago
 5835 South Kimbark Avenue
 Chicago, Illinois 60637

Yerry, Marie J.

Interage Classrooms
 107 Valley Avenue
 Locust Valley, New York 11560

Examples of Programs Which Have Materials for Staff Development and for
Working Individually with Young Children

Davis, La Myra

Experiential Learning Design for
Teacher Trainees
The Institute for Research in
Human Resources
North Carolina A. and T. State University
Greensboro, North Carolina

Gordon, Ira

Infant Education Program
Has materials for infants and staff
training which demonstrate play with
infants which children would probably
understand
Institute for Development of Human Resources
College of Education
University of Florida
Gainesville, Florida 32601

Levenstein, Phyllis

Verbal Interaction Project
A program of home teaching which has
both materials for home sessions and a
training program for staff
Family Service Assn. of Nassau County, Inc.
30 Albany Avenue
Freeport, New York 11520

Schaefer, Earl S.

The Infant Education Project in Washington,
D.C.
A home reading program for infants using
various staffing models
National Institute of Mental Health
5454 Wisconsin Avenue
Chevy Chase, Maryland 20203

Weikart, David P.

Ypsilanti-Carnegie Infant Education Project
A home teaching program with carefully
thought out materials and training
procedures for staff
Department of Research and Development
Ypsilanti Public Schools
Ypsilanti, Michigan

Review of Tutoring Research

Rosenshine, Barak and
Furst, Norma

The Effects of Tutoring Upon Pupil
Achievement: A Review of Research

Available from authors

c/o Department of Educational Psychology
Temple University
Philadelphia, Pennsylvania 19122

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CHAPTER 10

PARENT-TRAINING PROGRAMS AND COMMUNITY INVOLVEMENT IN DAY CARE

Robert D. Hess, Leonard Beckum, Ruby T. Knowles, Ruth Miller

INTRODUCTION

The care and education of the young are the responsibilities of the total society. Whether carried out through the family or through extra-familial institutions, the education of children reflects a nation's character and determines as well its future capability to deal effectively with issues of growth and threats to its survival. The quality of care offered children represents both a nation's interest in the well-being of its young and a commitment to its own future.

Patterns of early child care and education in the United States have been altered fundamentally during the past decade. Perhaps the most significant feature of this change is an expansion of the role of extra-familial institutions with a consequent decrease in family participation in early socialization. This change shifts the responsibility for a substantial part of socialization from family to public institutions. If this recent trend truly represents a reallocation of socializing functions, it may be of concern to some that the education of the very young child is being transferred to institutions of public care and education which themselves have been under severe attack as being inadequate, irrelevant, and too cumbersome to keep pace with the changing needs of this society. However, whether or not these concerns are justified, there is unquestionably a multiplication and diversification of educational institutions for the young and these are becoming an ever more dominant part of the daily lives of increasing numbers of children at earlier ages.

Significant among the outcomes of Project Head Start were the emergence of new educational patterns and public school involvement in education at the pre-school level. At the time Head Start was planned, there was no existing major institution responsible for programs and procedures in early education. Head Start, with its policy of federal funding through local community and school structures, facilitated the growth of different organizational patterns through which educational programs could be delivered to mothers and young children. There was and is a resulting competition for funds, for the attention of the child and the family and, as socializing institutions, for responsibility and influence upon the behavior and minds of the young. The growth of these new organizational patterns and the extent to which they are effective are important phenomena in their own right; however, they are also important with respect to the way they modify other socializing and educational institutions, especially the family and the primary school. The pattern through which programs are provided has an impact upon education because decisions about procedures and policies often are made through a school's administrative mechanism and its constituents.

The growth of interest and national investment in early education

during the past few years are, in part, results of influence and pressure from many sources, particularly from major ethnic groups and the civil rights movement, which have concerned themselves with inequality of opportunity in the United States. Pressure from such social and political sources did not end with the legislation that provided additional educational resources through Project Head Start -- it only began. The influence of political groups will be a major factor in the shaping of early education in the next decade. The interest and concern of several ethnic groups in pre-school child care in the United States is growing, and it seems likely that there will be increasing participation by other groups, such as women's rights organizations, in decisions about the types of care to be provided for young children.

COMMUNITY DISSATISFACTION WITH EXISTING GOALS AND PROGRAMS OF DAY CARE

The preceding chapter dealt with involvement of parents in early education programs from the standpoint of how such participation would enable the school to do a more effective job and increase the benefits, especially educational ones, to the child. For purposes of presentation, the previous chapter accepted the assumptions of the traditional institutions on which such programs are based. However, some critics contend that these assumptions often ignore the needs of poor ethnic communities and fail to take into account that cleavages between the mainstream of society and several minorities, whose needs and goals have been recently expressed in articulate and urgent forms.

In this chapter, the participation of parents is viewed from a somewhat different perspective. Whereas the preceding discussion was focused on children and families within traditional institutions, this chapter is oriented to the needs and demands of several emerging institutions and groups. New social and political forces within this country are here assumed to be visible expressions of a discontent which is much more prevalent in this society than the actual membership of such groups would indicate. It is the attempt of this chapter to present the perspectives of these groups in their own terms and to consider their potential impact upon Day Care.

Several of these emerging organizations are developing ideas about early childhood education and Day Care which are more congruent with their own goals than with those of contemporary preschool programs and traditional Day Care accommodations. The groups mentioned here -- Welfare Rights Organization, the Black Panther Party, La Raza, and women's rights groups -- should be considered as examples of organizations which are attempting to serve the interests of minority groups: the poor, Blacks, Chicanos, and women. These organizations regard themselves as spokesmen for the communities from which they come. The dissatisfactions they voice and the programs they envision are in some ways similar for all the groups. They express not only a complaint about the number and extent of presently available programs for minorities but also a fundamental objection to the goals which these programs represent -- a vague sense that, whatever the stated purpose, public programs have a hidden purpose which will further exploit minorities.

The intensity of dissatisfaction among these groups can easily be

underestimated. In our conversations with the representatives of a small number of community, social, and political groups, a common theme of resistance to and rejection of governmental (national and local) programs emerged repeatedly. These groups believe that it is futile to attempt to cooperate with governmental programs for the poor. This resistance is significant and far reaching, regardless of the forms it takes. It is becoming more organized, and it appears, on the basis of informal observation, to reflect widespread dissatisfaction among significant segments of this country's population.

As a particular illustration of the stance that some groups take toward federal planning and programs, we cite the following letter which was received by a staff member in response to our request for cooperation and information:

We discussed meeting with you and decided we could not support your research project.

We realize HEW has ignored or refused all recommendations by Welfare Rights. We realize research is funded by big business and government grants which are taken from our tables and our pockets. We realize this is one more futile attempt to disguise government spending in directions other than relief of the people's problems.

We sincerely wish your project could reflect the people's needs and your proposed solution be acted upon; but the ghetto people are forced to be more practically realistic than the academic community.

We welcome communication with you unofficially and are sorry your energies are not as productive as you would wish.

All Power to the People
Welfare Rights of (Any City)

1. Criticisms of Preschool and Day Care Programs

Because some of the common concerns of various social and political groups are emphasized here, this may suggest that they are generally similar in their views, goals, and strategies. However, this is not the case. There are profound differences between and among some of the groups. For example, traditional patterns of family life and of sex roles of certain ethnic groups are in sharp contrast to some of the goals and views on which women's rights groups are attempting to organize programs. This is not, then, a homogeneous group of organizations, with slight variations from one to the other. However, they share one thing in common which gives them a sense of common experience and unity -- the feeling that they have been mistreated by a stronger, more dominant part of their society. It is not our purpose here to evaluate these goals and their possible implications. Rather, it is to describe points of views and to present criticisms as we know them.

a. Attitudes about present early education curricula

All of the different groups with which we are concerned here have

elaborated statements of philosophy, objectives, and analyses of the contemporary American political and social scene. For some of them, concern with Day Care and reform in child care education is almost incidental to their central goals and programs. For others, reform in child care has a prominent place in their announced programs and activities. There are several criticisms that articulate their dissatisfaction with present offerings in Day Care and education. These are summarized below. It is obvious that some of the criticisms apply more appropriately to some groups than others, but no attempt is made here to associate these specifically with any one of several groups.

These groups maintain that, historically, educators have not admitted the existence of sub-cultures in the United States whose needs could not be adequately met if they were socialized into the dominant culture. This view reflects their feeling that the present educational system at the pre-school level is designed to transmit cultural patterns of the dominant middle class society.

Educational and other institutions of society have emphasized the transmission of the values of the dominant culture and in doing so have developed a negative image (both personal and cultural) in various minority groups. Educators have underestimated the degree to which children from minority backgrounds are aware both of the differences that visibly separate them from the dominant culture and also of the fact that these differences are often negatively evaluated by their teachers and their peers.

Program personnel often have had little or no training in speaking and understanding dialects and languages other than standard English, and neither appreciate the richness and complexity of a child's speech nor respect its cultural roots. This has led to problems of communication between teacher and child, and also contributed to the negative image that the child acquires of his own culture and native tongue.

Parents have not been consulted about the content of the child's early education nor have they been engaged in decision making roles. Parents often feel that program directors do not trust the parents' judgment but rely only on their own expertise -- an expertise that the community groups themselves do not accept. These parents have no choice but to find some form of Day Care for their children. Yet they have little knowledge about the influences to which their children will be exposed. Thus, they experience a significant sense of loss and inefficacy in turning their children over to what they regard as an alien and perhaps hostile institution.

b. Criticisms of the structure of existing Day Care programs

In addition to serious reservations about the content of the curriculum, both academic and attitudinal, to which children are exposed in early education and Day Care programs, the groups to which we refer also have several objections to the structure and organization of existing programs. For the most part, these objections deal with matters that are related to program guidelines and operating policy procedures.

Program eligibility guidelines have been too narrow and have

kept Day Care out of reach of many needy parents and children. Many low income parents or one parent families do not meet the poverty guidelines but do need Day Care for their children.

Many mothers must pay for Day Care out of their already scanty wages. These mothers have little economic resources to purchase Day Care, and the services they can afford are often inadequate from both educational and care perspectives.

Administrative policies do not take into account the working schedules of parents. Many Day Care centers close by or before 7 P.M. The needs of children whose parents must work at night are thus ignored. In most Day Care centers, school age children are not eligible for Day Care services. Hence, those children are left without adult care and supervision during non-school hours while the mother is working.

2. Growing Mistrust of University, Business and Government

There is a growing credibility gap between university-based programs and ethnic minorities who have been the subject of intensive study during the past decade. There are also signs that minorities are dissatisfied with their treatment by other institutions in the society. These findings appear to be developing along the following lines:

a. University research programs

The orientation of research programs and some of their underlying assumptions are seen as "inimical to minority interests." In the view of some groups, these include:

(1) A tendency for research to focus upon low income communities and people in ways that emphasize the presumed negative or pathological aspects and features of low income and minority people. Part of this picture, in their view, is the phenomenon of "Jensenism," which might be paraphrased as an interest in and a desire to study the possibility that minority groups are inferior to whites. There seems to be, to them, a relationship between a concentration of this kind upon presumed negative aspects of low income society and culture, and the program content which is developed for Black and other minority children.

(2) In both educational and research programs, there is a tendency on the part of researchers to use terms such as "culturally disadvantaged" or "culturally deprived" and other labels which have an impact upon the self-concept of both adults and children in the groups studied.

(3) A number of experimental and action programs have been based on "deficit" concepts of life style and presumed inadequate child-rearing practices of minority families. These concepts carry connotations which are deprecatory to groups that programs are presumably designed to help.

Minority groups have come to believe that programs organized for research purposes are usually of short-term duration, may be conducted by

people who are insensitive to or unfamiliar with cultural differences, have no pay off to the community, and seldom form a basis for social and political action or involve the community residents in productive or work roles. They do not serve the needs of the parents, have little positive effect on children and may even be detrimental.

The argument that one should cooperate for the sake of knowledge and science, which perhaps was once an effective plea, or that the research will contribute to some future good will not often impress the potential subjects of the research program.

A recent national evaluation of Parent Child Centers points to the problems of doing research in poor, ethnic communities (Kirschnar Associates, 1970).

... When low-income parents are given half of the positions on the Policy Advisory Committee, they will make some important decisions which the professional staff and the national planners did not expect and might find hard to accept.

Among these difficult to accept decisions will be the refusal to allow research to be done in the Parent-Child Centers. Low-income parents who have decision making power over the allocation of funds will not vote these funds to conduct research programs. As one mother stated poignantly, 'I know all I cares to know about being poor. I is not going to vote five cents to learn more about poverty.' It would appear to be unreasonable to expect poor parents to divert funds away from direct services to pay for research consultants, data collection or processing, testing, measurement or evaluation. The great fear of research or any data gathering in poor communities must be accepted not only as a restriction on research, but as a measure of suspicion many poor people of all ethnic groups have of government programs. From one end of the country to another, the rumor is passed through Black ghettos, 'They are gathering information about us to carry out a plan of mass genocide.' On the Indian reservation, the rumor was, 'There are not enough white babies being born, so they are opening a center to steal our Indian babies for adoption.' Because of these acute fears, real though unfounded, it is almost impossible to do research or gather data except through a service organization that is well rooted in the community. When the decision to do the research and to allocate the funds to carry it out are the responsibility of the parents, it is unlikely that they will opt for research (pp. 405-06).

b. Business sponsored Day Care and preschool programs

One of the features of early education in the United States is the emergence of relatively large and well financed organizations

which offer care and education for what they expect to be a profit making venture. It is too early to assess the style and effectiveness of most of these efforts, but some of the groups we are describing here have developed a number of expectations about business offerings. In addition, there appears to be an increase in the number of preschool centers that are organized on-site by corporations in an effort to provide a service for female employees. Some of these groups, especially the women's rights groups have reservations about these operations.

The following concerns are expressed:

(1) Some parents feel that franchise operations are oriented to profit only. They are concerned that the profit motive will override the consideration for parents' and children's needs.

(2) Day Care which is provided in the place of the mother's employment, while not necessarily operated for profit, does have its effects upon the mother and her family. For example, it may reduce her mobility by creating a reluctance to change jobs because of the effect it may have upon the child to move him or her to a new situation. Although industries and businesses form Day Care as a fringe benefit which will attract women workers, it may be somewhat less effective than has been hoped.

3. Goals of Minority Groups for Day Care

From conversations with a number of people involved in early childhood and Day Care planning, several assumptions emerge regarding what would be the desired program accomplishments. The central assumption appears to be that since public institutions of early education have largely failed to meet community needs in the past, they probably will not direct their energies to meet the perceived needs of minority groups in the future. A number of groups are beginning to act on this assumption. Programs therefore, must be developed by the communities themselves if they are to be responsive to the community's needs. These programs stress the need for adequate services to families, quality child care, as well as meaningful content and emphases in the curriculum.

Programs that are being suggested and planned are similar to traditional programs in that they stress cognitive growth and adequate nutrition. In other words, they recognize the importance of teaching basic skills and good health. However, the context in which these are offered differs from that of traditional programs. Some of the special emphases of the programs are:

(1) Programs should develop positive self-concepts and children's pride in themselves, their families and their heritage.

(2) Programs should be designed to foster bilingual competency and cross-cultural appreciation.

(3) There should be political education for children, at their own level, in which they learn that certain economic and social conditions exist outside the control of their parents, and that these conditions contribute to their powerlessness and poverty.

(4) Programs should develop a continuity of purpose among the family, the community, and the schools.

(5) Programs should stress cooperative living and sharing of limited

resources. The non-competitive atmosphere in the Day Care center contributes to foster the spirit of cooperative living. It is not necessary for the children to compete for food, materials, affection, etc. The feeling of community, group pride, and common purpose grows as the children learn. Group pride is based on a feeling of self-respect which is culturally based. To insure that the children develop a sense of power and of self-worth, the parents strive to let their children know that education (by their own definition) is important.

4. Routes to Implementing Proposed Programs

The structure of the programs desired by the new pressure groups clearly is one which requires the active participation of people from the community who will use Day Care services. Such participation is seen as essential in order to assure a continuity of influence and interaction between the centers and the parents with respect to the child's experiences, especially the transmission of cultural and ethnic values. The close relationship and interaction between the Day Care staff and the parents that is assumed in some of the goals described above is possible only if the community feels secure in its responsibility for the total program.

Community and other pressure groups described here particularly are distrustful of the intent of governmental agencies and they base many of their actions on the conviction that little change will occur at the local level without an increase in the power of community groups to affect the institutions that serve them. They appear to be prepared to confront institutions that are not meeting their needs and are prepared to go to considerable lengths to show their opposition to many aspects of the present system. In recent years, a great deal of protest and attack has been directed at the public schools; if Day Care centers are established under social agencies for areas in which these community groups are prominent, it seems inevitable that the groups will begin to confront the relevant agencies with remarkable vigor and determination. One of the primary goals of these groups is to change the quality of services that institutions are offering; if they are convinced that the institutions themselves have no significant desire to change, the groups will attempt to muster sufficient political power to alter the structure of the institutions or, by protest and other forms of interference, attempt to drastically alter them.

In instances where Day Care centers are provided by corporations, it seems likely that groups of parents will display increasing initiative in attempting to negotiate with the corporations with respect to hours and conditions under which the Day Care centers are operated. For example, they probably will demand that around-the-clock Day Care services be provided for children whose parents work on night and mid-night shifts, as well as those who change working hours on a regular basis (e.g., changing shift arrangements).

EXAMPLES OF EARLY EDUCATION PROGRAMS DEVELOPED BY SOCIAL AND POLITICAL GROUPS

As the previous sections indicate, the suitability and adequacy of early education institutions -- including Day Care for the populations they presumably are designed to serve -- are being challenged in fundamental ways.

the strength and potency of these confrontations are represented not only the political impact they may have on the control of programs, but also the design of programs they have developed to deal with their dissatisfactions.

In conversations with representatives of several community groups, we encountered a number of experimental programs or proposals for programs which may illustrate the settings, curriculum, and pattern of activities which may be established in some communities in the future. These are offered as examples of the ways certain social groups translate their dissatisfactions with the prevailing system into education programs.

Programs Developed by Ethnic Groups

One experimental program observed is an example of how a group attempts to prepare the young children from a Black community to cope with existing social conditions by developing a strong ethnic identity. The goal is to determine whether strong ethnic pride, identity, and ego can be developed in a segregated educational setting.

The school is operated on a segregated basis for 30 children (two and one-half to five years old), all of whom are Black. Community high school students serve as assistants on a part time basis. The school stresses self-awareness and cultural identity through statements which refer to the child, his features, and his worth as a person. Successful Black people, are identified, described, and presented as models for the children. Combined with this cultural approach is an equally strong cognitive component to the curriculum.

The board of directors, which is composed of community parents, meets every other week. Several parents work in the school as teachers. Fees are determined on a sliding scale. Another program is illustrated by a school designed to give the Black child a particular perspective on his cultural, social and physical environment as well as a specific life style and belief system for relating to his environment. The educational philosophy emphasizes that the Black community is the school's main classroom and resource, that people of this community are the children's teachers, and that children and adults learn together to build Black pride and positive self-image.

The curriculum is traditionally based with the learning of cognitive skills. However, there are also equal emphases on ecology, multi-cultural education stressing world religions, cultural life-styles, art, media, etc. and "means by which Black people can work non-violently and creatively for social justice."

The Mexican-American or Chicano community has also developed its own programs of early care and education. One example is a parent controlled and staffed bilingual and bicultural preschool program for Chicano children from ages one to six. The staff is comprised of one paid person who serves as the program coordinator. The mothers serve as teachers on a rotating basis. Volunteer professional consultants provide the supportive services of health care and educational and social agency resources.

The program orientation is towards developing a historical and

cultural awareness of Mexican heritage in the children. In this connection, the development of positive self-image and ethnic pride are fostered. There is an emphasis on the learning and use of both the Spanish and English languages. Rather than using a formal curriculum, bilingual/bicultural learning experiences are provided in the traditional preschool areas of music, art, science, language development, space and number concepts.

2. La Raza and the Black Panther Party

La Raza and the Black Panther Party have initiated a series of community service programs; among these are the Breakfast Programs and Liberation Schools. These groups believe that the Breakfast Program is a model of what can be done in a community to help working mothers with school age children; that is, a mother does not have to worry that her child will not be fed before she goes to work.

The food and money used in the program are donated by businesses, both Black and white, in and out of the community. The programs are usually held in churches because the kitchens are well equipped and large. Ideally, the programs should be held in school lunch rooms. Although the Breakfast Program was initiated and is sponsored by the Black Panther Party, interested people in the community have been encouraged to and do take part in the actual administration and function of the Breakfast program. The aim is to serve the mothers and children in the community.

Neither of these groups is involved in planning for federally funded Day Care; however they recognize working mothers need such institutions and have instituted their own Day Care centers. They have limited funds with which to start Day Care programs, but by organizational policies would not accept any government funds for their creation; acceptance of federal monies implies, for them, acceptance of federal policy and operating guidelines. Their existing programs are important because of their implications. By their very existence, they point out the way communities and organizations perceive the community's needs, arrange these needs into priorities, and set up programs to answer these needs. Furthermore, their ideas and interests challenge those of traditional Day Care.

3. Women's Rights Groups

Women who identify with the goals of women's rights groups argue that they, too, feel the adverse effects of discrimination, stereotyping, and negative self-image in ways similar to those experienced by racial minorities. Although there are major differences in philosophical and programmatic orientation among these women's rights groups, all argue that the division of labor based on assumptions of inherent sex differences constitutes a system of roles and laws which discriminate against women. A woman's ability to bear children does not confer upon her the unique ability, based on sex, to care for and raise children, any more than a man's biological ability to father children disqualifies him from child care; home making and child care are learned social roles without biological imperatives as to who performs them. Women's rights groups are unified in the desire to "liberate" women and men from social norms which prescribe acceptable sex role behaviors.

Day Care, then, is important to women both as a means and as an end.

The availability of adequate, 24 hour Day Care facilities would provide a means whereby both parents can work in order to improve the family's opportunities while being assured their children will receive adequate care. This would undoubtedly have implications for male-female role relationships within the family and the larger society. As an end, Day Care is important because women want quality care for their children. Many working mothers lose a large amount of their salaries because they must pay babysitters or nurseries to care for their children while they work. Because their earnings are often small, they cannot buy adequate care. Other working mothers cannot afford Day Care at all. In some communities, school age children will take turns staying at home to care for siblings.

4. Welfare Rights Organization's Program

A Welfare Rights Organization (WRO) in California has drawn up a comprehensive proposal for the organization of Day Care centers. What distinguishes their proposal from others is the importance they place on the employment of welfare mothers in the centers.

WRO believes that the community mothers should control the entire program. Mothers over forty who have problems finding other employment, and/or who wish to work in the centers, should be trained as administrators and employees in the centers. WRO does not believe it is necessary for a Day Care teacher or administrator to have a Master's degree. They feel that mothers who have raised their own children have had sufficient pragmatic training in administration and child development to become competent employees with a minimum amount of direction.

WRO proposes to develop a curriculum which would include training in cognitive skills. They also stress the importance of providing those social experiences in the children's lives that the parents cannot provide because of lack of time, funds, and transportation. Therefore, they propose a series of weekend outings (trips, campouts, picnics, etc.) to be financed and planned as part of the Day Care program. These outings might encourage greater parent involvement in the program and would bring the parents, children, and staff together informally where ideas, goals, and objectives could be discussed.

WRO attempts to work through established channels and institutions to obtain its programs and funding. However, they explicitly express the need for funds to be administered directly by city governments or other local agencies to eliminate state and federal bureaucratic red tape and salaried public employees who serve only as middle men.

IMPLICATIONS

A number of federal programs, such as Head Start and Parent Child Centers, gave parents an opportunity to participate in the decisions affecting their children's education. This helped create a trend toward the legitimization of community control, specifically in the area of early education. It can be expected that minority and other pressure groups will continue to expect to be an integral part of planning and decision making. These demands and expectations will be a real and potential source of conflict and protest.

The implications of the demands by dissatisfied groups within the society for changes in early education are related less to the content of the programs and their influence upon young children than they are to the influence these movements may exert upon early education institutions. Such movements offer alternatives to existing institutions and programs, and in this way may come to have an impact, through competition and by example, upon more traditional forms of Day Care. They may stimulate professionals in Day Care and early educational programs to examine their own assumptions and the ways in which their programs serve subgroups of the society. These emerging pressures could thus conceivably improve our total Day Care offering not only for the minorities discussed in this chapter but for the total society.

The dissatisfactions that give rise to demands for new patterns of Day Care have several social implications. There appears to be in these movements an active, militant disengagement from the society. This is not the sort of alienation that results from neglect and uninvolvedness, but an assertive attempt to provide for their children protection against what they regard as a noxious social and political environment. The programs tend to have a protective character about them -- one in which the well being of the child is to be fostered by helping him deal with what is seen as an adverse and threatening social context. This is to be achieved through insistence on community control of Day Care centers, demands that ethnic pride be a prominent part of the program, and through an emphasis on communal values and collective support rather than individualistic and competitive values. These groups seem to be saying that even if they cannot change the society, they will do their best to see that their children can deal more adequately with it without damage to themselves.

As a part of the value system of these groups there seems to be emerging a sense of a collective responsibility for individuals and for children. This takes somewhat different forms in the ethnic programs than it does in some statements of women's liberation groups. One possible implication of this trend is toward diminution of individual responsibility for one's children and attempts to shift responsibility for economic support, child care and education to a larger group. To some observers then, some of these programs seem designed more to accommodate the needs and wishes of the mothers than to promote the well being of the children.

The tendency to emphasize both collective responsibility and the ways in which Day Care can serve mothers have some implications for the family as an institution and the role of women within it. The directions in which these programs seem to be moving will permit mothers to be more independent of family responsibility. It is not clear that the trend of this kind will in any way weaken the family structure or its impact upon children, but it seems likely to change the pattern of activities and roles both within the family and the larger society.

These movements may also have long-range political implications. Traditionally young children have been taught a sense of allegiance and confidence in their country and a belief that it will serve their interests. Given the orientation from which these groups begin, it will be significant to see whether programs which are essentially based on disaffection can

ear children to accommodate to and help deal effectively with the problems of a society and system which their parents view as antagonistic. It will also be of great interest to see whether the institutions of the society can accommodate to the sort of criticism and attack which these minority groups bring to bear on the established institutions and centers of power.

The high value that these groups place upon providing a protective early environment for their children, and their belief that the need to do this stems from their peculiar situation within the society, has implications for the status and participation of experts and professionals in child development and early education. It seems likely that the professional who emphasizes cognitive and other kinds of development will continue to be respected but will not have the dominant place in planning and in consultative roles that he has had in the past. This is a reflection of the priority that these groups have established which stresses features of programs which deal with problems of discrimination and the effects of being a minority member in this society.

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PART IV

PROGRAM SUPPORTS

CHAPTER 11

HEALTH SUPPORT IN DAY CARE

Ann DeHuff Peters*

INTRODUCTION

The history of health support in Day Care is characterized by fragmentation, duplication, lack of adequate communication, and a general failure to understand the total scope of this challenging potential for health service to families and children. It reflects in many respects the history of American medicine, of pediatric care, and of the development of public health maternal-and-child-health services - all of which have tended to move in unilateral fashion, focusing on the individual child, family, or program, or even more narrowly on a specific detailed bit of laboratory-type research, and somehow failing to pull together the fantastically competent medical resources of the United States into meaningful comprehensive services to young children and their families. In spite of repeated pleas for a broader focus (Baumgartner, 1961; Davens, 1967; Richmond, 1965, 1968), the dedication and clinical competence of the American pediatrician continues to be largely concentrated on diagnostic and therapeutic dilemmas, or on the day-to-day counseling of children and parents of the American middle class (Bergman, 1966; Haggarty, 1969), while children of less "advantaged" groups, those living all or part of the day in a group setting, or those with only "nuisance diseases," have been left to fend for themselves or to seek health support with little help in understanding where to get it (Bierman, 1961; Alpert, 1967; Wedgewood, 1970). Numerous studies of the distribution and utilization of pediatric health care have been made (Peters and Chase, 1967; Gallagher, 1967; Hessel and Haggarty, 1968; Alpert, et al., 1968; Mindlin and Densen, 1969), all reaching the same conclusion: namely, that serious inequities exist in the ways families from different socioeconomic strata have access to, or use organized health services. These findings have pertinence to the subject of health support for children in Day Care because many children in organized non-profit, and publicly-supported Day Care centers in the United States come from the population groups who have less access to what has been described as "quality health care" (Levine and McCabe, 1965; North, 1968), than do their peers from more affluent families.

* Based in part on original material prepared by:

Dr. William Forsyth
 Dr. Marsden S. Wagner
 Dr. Albert J. Solnit
 Dr. John A. Schowalter
 Dr. Frank A. Loda
 Mrs. R. Evelyn Aabel
 Mrs. Marjorie Land

Efforts have been made over the years to involve the health professions actively in Day Care at all levels - from planning policy and programs to provision of individual child health care, both preventive and therapeutic (Child Welfare League, 1946; Zimmerman, 1955; Chaplin and Jacobziner, 1959; Goldsmith, 1959; Peters, 1962; Bierman, 1963; Academy of Pediatrics, 1966). These efforts, unfortunately, have been poorly coordinated to date. All too often, the expertise developed at one point in time or at one geographic location, has not been successfully transferred to others, to use, to further develop, or to revise.

New York City, a pioneer in many health programs, established in 1943 a Division of Day Care, Day Camps, and Institutions in its Bureau of Child Health of the City Health Department. The combination of talents of the Child Health Bureau Director, Dr. Leona Baumgartner, her assistant, Dr. Leo Jacobziner, and the Day Care Division Director, Miss Cornelia Goldsmith, resulted in an interdisciplinary service to young children in that city, which could have served as a model (Goldsmith, 1959; Chaplin and Jacobziner, 1959). In 1946, a multiprofessional conference sponsored by the Child Welfare League of America (1946) outlined health needs in Day Care and spelled out in detail the kinds of services that could be provided from the local health officer, nurse, pediatrician, nutritionist, and psychiatric consultant. The focus and type of the recommendations are still appropriate, although methods and priorities need updating. In 1955, Dr. Kent Zimmerman (1955) a child psychiatrist, urged physicians to become actively involved in Day Care programs. During the 1950's and early 1960's a few states (e.g., Kansas and Maryland), in which the State Health Department had supervisory responsibility for group Day Care, began to examine their practices and to outline more effective means of providing health services to children in the Day Care setting. These scattered instances of health concern, however, did little to encourage or expand the development of health care in Day Care under either private or public support. Day Care continued to be viewed primarily as a child welfare service. A few pediatricians or child psychiatrists gave consultation and/or some type of special service to Day Care or nursery school programs (Mendelsohn, 1960; White, 1966), but over the country there was wide variation in the extent to which local health departments and pediatricians in private practice became involved. (See section on Research.) As far as direct health care is concerned, the patterns of expecting each family to use its own source of health care has remained the consistent model, except in a few special instances. (See sections on Research and Current Practices.)

The 1960 National Conference on Day Care, an invitational conference called by the Children's Bureau of the Department of Health, Education, and Welfare, included only a handful of physicians among its more than 300 participants. Those few physicians who attended were already actively concerned about health needs of children in Day Care and had been working in publicly-supported state or local health programs.

In the early 1960's however, several steps were taken to try to bring health support more strongly into focus as an essential component of good Day Care in the United States. Following a visit to several northern

European countries, Dr. William Schmidt, Professor of Maternal and Child Health of the Harvard School of Public Health and also, at that time, Chairman of the Maternal and Child Health Section of the American Public Health Association, persuaded the Section Council to activate a new committee -- the Committee on Day Care (Peters, 1962). This committee was envisioned as an interdisciplinary group - and so it became. During the next six years of its existence, it established communication with a wide array of others concerned with child development and early child care: the Society for Research in Child Development, the National Institute of Mental Health, the Children's Bureau of the Department of Health, Education, and Welfare, the Academy of Pediatrics Committee on the Infant and Preschool Child, the Child Welfare League of America, the National Committee for the Day Care of Children, Inc., and the National Association for the Education of Young Children, among others. It sponsored interdisciplinary conferences (Chandler, et al., 1968), carried out studies in collaboration with other groups (see section on Research) arranged sessions on Day Care at the annual meetings of the American Public Health Association, and, under a grant from the Children's Bureau, developed updated material on the breadth and challenge of child Day Care (Dittmann, 1967). However, the Committee's efforts in 1968 to persuade the American Public Health Association (APHA) to activate a Program Area Committee on Early Child Care met with failure. Thus, it has remained as a Committee of the Maternal and Child Health Section but has undergone some changes in that it has been renamed the Committee on Early Child Care, and has a more narrowly selected public health composition.

Also, in 1962, Dr. Jessie Bierman, then Professor of Maternal and Child Health at the School of Public Health, University of California at Berkeley, was sent as the official United States delegate to an Expert Committee on the role of Day Care centers and institutions for child care, convened in Geneva by the United Nations. Doctor Bierman (1963) returned with the comment, "The United States is indeed an underdeveloped country with respect to our assumption of responsibility for the welfare of the many thousands of our children whose mothers work outside the home or for other reasons are unable to provide adequately for their care" and she lent her support to efforts to bring health personnel more actively into Day Care planning and programs. The 1965 National Conference on Day Care Services, sponsored by the Children's Bureau, included a few more physicians and nurses in its invited participants, and on its program than did the earlier conference. Included on the program was the controversial subject of the care of infants in groups which had been raised by the Committee on Day Care of APHA and criticized as needing re-evaluation.

In 1963, the Academy of Pediatrics established a Committee on the Infant and Preschool Child whose responsibilities included a new look at health aspects of Day Care. However, the most pressing problem seen by the Academy Committee was that of child abuse, so their initial efforts in Day Care were limited to participation in national conferences, attendance at various meetings at the request of other groups, and the preparation of a statement, "Pediatricians and Day Care of Children" which was issued as a Newsletter Supplement (Academy of Pediatrics, 1966). In 1968, however, the Executive Board of the Academy, in response to numerous requests within and outside the Academy membership, asked the Committee to develop standards

for Day Care for the child under three - the area of greatest controversy. In carrying out this responsibility, the Academy Committee has sought advice from other groups - the American Psychological Association, the Society for Research in Child Development, the APHA Committee on Early Child Care, and the National Association for the Education of Young Children, among others. The standards are ready for publication and will be available late in 1970.

RESEARCH

1. Extent of Health Research in Day Care

Research in all aspects of health care and health problems in Day Care is sparse, despite the opportunity which these programs -- including Head Start -- have afforded to study a "captive audience" of large numbers of preschool-age children. Research issues in health of young children were extensively reviewed in the fourth Head Start Research Seminar (North, 1969; Birch, 1969; Haggerty, 1969; Wagner, 1969).

Among the possible reasons for the dearth of good studies may be the following factors. Many physicians, even those trained in research, are still oriented toward pathology, using a patient or problem focus (e.g., the incidence or type of anemia, or the efficacy of a new surgical procedure or drug). They are accustomed to dealing with small number of subjects over a long period of time, and are cautious about interpreting their results prematurely. The long time-lag which now exists between the submission of a paper to a professional journal and its appearance in print, together with the plethora of professional journals, has increased the delay in widespread dissemination of research findings. Biostatisticians, trained in the use of sophisticated epidemiologic techniques, are in acutely short supply. Their attention has been primarily directed toward major problems of mortality and morbidity at various age levels (e.g., cardiovascular disease, epidemic infections, and perinatal mortality) and large population groups. The narrower setting of Day Care has not yet been able to attract their talents. There is still a communication hiatus between the three major groups of health professionals concerned with the delivery of health services in the United States: those in private practice in the community, those in the teaching-hospital-oriented setting of academic medicine, and those in public health programs. The pressures within each of these fields, and their differing commitments to patient care have made collaborative research in a new area such as group Day Care difficult to develop. Yet collaborative research is essential to understand how to provide effective health support in Day Care, especially for the infant and very young child.

2. Research Findings

Most studies in health in Day Care are largely descriptive in nature. However, they are included in this review, together with the few comparative or analytic studies, to demonstrate some of the complexities facing the individual wishing to get up-to-date information about health support in Day Care.

a. Studies of Health Service Provided by Official Public Health Agencies

Three studies have been made to try to determine the extent of public health involvement in child Day Care (Curran, 1958; Peters, 1964) including one done in 1970 for this report.¹ All were of the survey type, using questionnaires addressed to local and/or state health departments. It is not possible to compare findings in detail because of the differences in methodology; however, one gains the impression of increased interest and involvement in Day Care over the years by both state and local public health agencies. However, direct services are still largely within the frame of other public health activities, and few have been designed expressly for Day Care needs. Major reported activities are participation in licensing and supervision, sanitary inspections, and public health nursing visits. Few provide direct health services to children, and these only in organized clinics or under special categorical health programs such as the Maternity and Infant Care and Children and Youth Programs.

b. Studies of Health Services to Day Care From the Private Sector of Medical Practice

Although the Academy of Pediatrics (1966) has gone on record advocating the participation of its members in Day Care health services, only one study has been carried out to see what actually has been occurring (Scurletis, et al., 1966). The fifty percent of pediatricians who responded to a questionnaire addressed to all the members of the State Pediatric Society of North Carolina showed a wide range of interest and knowledge, all the way from one young physician who said simply, "No, I don't know anything about Day Care, but it looks as if I should try to find out," to an indignant busy specialist in a medium-sized city who complained in detail about mothers who called him at 9 p.m. about their children who had become ill earlier in the day in the Day Care center. Although the questionnaire was poorly designed and did not lend itself to concise and logical analysis, the answers revealed some concern among North Carolina pediatricians about health care and health practices in the Day Care setting, but little knowledge of how policies and practices were determined. Few had been asked for help of any kind except for direct health care of children in their own practices, which largely concerned respiratory infectious disease. In a letter to the Editor of Pediatrics in response to the report of this study, White (1966) emphasized the opportunity and need for more involvement of pediatricians in Day Care.

c. Studies of Health Problems or Needs of Children in Community Day Care Programs

One study which was directed toward parents of children in Day Care and operators of Day Care programs and focused on health practices and problems in community Day Care settings, noted wide variations in health

¹ Original material prepared for this review by Dr. Marsden S. Wagner, July 1970.

practices and health support (Morris, *et al.*, 1964). Both parents and operators expressed a need for help with individual and group health problems. It was found that their chief sources of help were physicians in private practice. The authors note: "The resulting health practices do not always conform to standards previously set down for the protection of children in group care." Whether the health practices or the standards needed re-evaluation could not be elucidated by this study, which raised more questions than it answered.

d. Studies in Head Start Health

Grotberg (1969), in her comprehensive review of research in Head Start, comments on the paucity of research proposals submitted in the area of health and nutrition. A few studies were then in progress but only one had been completed. This study (Munro, 1968) focused on the relationship between hemoglobin level and intellectual functioning in Head Start children. The data showed an association between increasing hemoglobin level and increasing intelligence scores in those children who began with low hemoglobin levels; however, the correlation was not highly significant.

Among the descriptive studies of the incidence of various health problems in Head Start children is one on anemia (Pearson, *et al.*, 1967) that shows a geographic variation in the incidence of significant anemia. The authors concluded that there was not a prevalence of severe anemia in children of Head Start age in the five cities studied. Two other descriptive studies detailed health problems found on Head Start physical examinations (Stone, 1967; Mico, 1968) and both corroborated findings from other studies which have remarked on the poor immunization status and the many health problems of children in low income families. In both of these groups, sixty-five percent of children were referred for dental treatment. The Boston study (Mico, 1968) reported that only fifty percent of children referred to another source of care received some form of service. A particular problem concerned the lack of effective follow-up of mental health referrals. Together, such studies substantiate the conclusion noted in the Introduction -- that is, that serious inequities exist in the distribution of health care in the United States.

e. Studies in Migrant Day Care Programs

A tabulation of health problems found in a summer migrant Day Care program in Kansas (Gilbert and Schloesser, 1963) found twenty-three percent of the children had untreated or unrecognized health problems, half of which were considered severe. Although treatment was arranged for these children, the authors stressed the need for better health support for all aspects of programs for migrant agricultural workers, especially in preventive service.

f. Studies of the Epidemiology of Respiratory Infectious Disease in Children in Day Care

With few exceptions, standards and guidelines for the care of children in group Day Care have recommended exclusion of the child with symptoms of illness. Since respiratory infectious disease accounts for

the preponderance of acute childhood illnesses, the necessity of scrutinizing these restrictions in the light of current knowledge of the nature of infectious agents is one of high priority. Evaluation of such questions has been undertaken in two experimental group Day Care programs, which differ in their admission policies and health practices. In the Children's Center in Syracuse, New York, where the age range is from six months to kindergarten age, children with symptoms of illness are excluded or isolated until the parent can take them home, following traditional pediatric Day Care recommendations.² Health care for these children is provided largely through the pediatric clinic at the Teaching Hospital of Upstate New York Medical Center. Dr. George Lamb has been carrying out sequential studies of viral infections but has not yet published his findings.

At the Frank Porter Graham Center in Chapel Hill, North Carolina, a more ambitious and integrated program of health studies was undertaken in 1966. These studies, although in part descriptive, also include analytical and comparative aspects. This center, which employs its own health team, includes children ranging in age from six weeks to six years. Children are allowed to come to the Center whether sick or well,³ are cared for by the regular Center personnel, and are studied extensively for symptomatology, antibody development, and infection by microbiologic agents. The studies of respiratory infection are a collaborative effort between the Center, the Laboratory of Infectious Diseases of the Department of Pediatrics at the University of North Carolina, and the Schools of Nursing and Public Health of the University.

A summary of respiratory disease experience,⁴ based on nearly 100 child-years of observation (1966-1970), reports approximately 8.5 respiratory illnesses per child-year. The rates were highest in children under one year of age -- slightly over 9.5 such illnesses per child-year -- and slowly dropped to less than seven respiratory illnesses per child-year at age five. These "illnesses" include all types of respiratory symptoms, even a "runny nose" without other associated problems. When fever was used as a basic criterion in association with other respiratory symptoms, the rate dropped to 3.1 febrile respiratory illnesses per child-year, with infants showing the highest rate of 3.8.

For a period of 10 months during 1968, a group of seven infants receiving home care in the community were followed very closely with visits to the home by a nurse epidemiologist to compare illness incidence in the home with illness rates in Center children. The families of the children in the home study group were of similar race, socioeconomic status, and family size to the children in the Center. The number of illness episodes in the children in their homes during this time period was almost identical to that of children in the Center. During these 10 months the seven children receiving home care had 68 episodes of respiratory or systemic

² Personal communication from Doctors Bettye Caldwell and J.R. Lally.

³ The only exception was during a chicken-pox epidemic when parents were asked to keep children at home when they had the disease. This caution resulted from the experience of one of the investigators several years earlier when a chicken-pox epidemic in a crowded unlicensed center resulted in two deaths from super-imposed staphylococcal disease.

⁴ Original material prepared by the Center health staff for this chapter.

illness symptoms compared to 64 episodes in the seven comparable Center infants. The home care groups had a slightly higher incidence of skin and gastrointestinal complaints.

It is difficult to compare illness rates in the children at the Frank Porter Graham Center with published data on illness rates because of the variance in methods of surveillance, criteria for illness and differences among the surveyed socioeconomic groups. The most extensive information about illness occurrence in the home is that reported by the Cleveland Family Study over a 10 year period (Dingle, *et al.*, 1964). This study involved a middle class population in Cleveland, Ohio. Despite the differences between that population and the children in the Chapel Hill study, the incidence of respiratory illness was very similar in the two groups. The major difference observed was that the highest rates of illness in the Cleveland Family Study occurred during the second 12 months of life while in the Chapel Hill Day Care group the maximum rates of illness occurred during the first year of life.

When the Chapel Hill Center findings are narrowed even further to the more serious type of respiratory infection - that involving the lower-respiratory tract of trachea, bronchial trees, and lungs - the analysis shows a total of 71 diagnosed episodes of disease of the lower respiratory tract -- a rate of .91 lower respiratory illnesses per child-year. "This is a high rate when compared with the reported incidence of lower respiratory illness in other populations, but over one-third of these episodes were tracheobronchitis, many of which were mild."⁵ Because the Chapel Hill health staff was looking particularly for symptoms of lower respiratory illness, a child was classified as having such a problem if any physical sign was present, however mild. The Center Pediatrician expressed the opinion that in many of these instances a child at home would not have been seen by a physician because of the mildness and short duration of the symptoms. Serologic and viral isolation studies suggested that over half of these illnesses were due to respiratory syncytial virus and parainfluenza virus type 3, known to be the agents responsible for much of serious lower respiratory illness in young children. Only one child was hospitalized because of lower respiratory disease, an episode of bronchiolitis caused by parainfluenza virus type 3. This virus was not found to be present in other children in the Center prior to this illness, but was isolated from a cousin who slept in the same room at home with the hospitalized child. The logical assumption is that the contact leading to this illness occurred in the home rather than in the Day Care setting.

Another aspect of these studies in the Frank Porter Graham Center has involved collaboration with the pediatricians in private practice in the city. Studying the pathogenic agents found by routine cultures and serology studies in both the Center population and children in the private pediatric practice, the investigators found that the patterns of behavior of the infectious agents in the Day Care setting resembled those in the general community in terms of seasonal occurrence, age incidence, and associated clinical disease. Similar results were found when some of these findings were compared with those obtained in studies of children

⁵ Original material prepared by the Center staff for this report.

receiving their health care at the pediatric clinic of the teaching hospital.

It is the opinion of the Center health staff, based on their findings to date, that it is safe to care for infants in group Day Care with adequate staff training and health care.⁶ Given these conditions, non-isolation of sick children does not appear to adversely affect the health status of the total group. It should be pointed out, however, that the level of care provided in the Frank Porter Graham Center is not generally available and would be difficult to provide financially in the general population at our present stage of health care development.

g. Mental Health Aspects of Day Care

Although mental health professionals are increasingly interested in Day Care as a means of preventing emotional maldevelopment, and see this service as an opportunity for early intervention in high risk families (Atkin, 1968; Lilleskov, et al., 1970), this reviewer has been unable to find descriptive or experimental studies of these aspects. Dr. Leon Eisenberg (1967) has cogently described the communication gap between the child psychiatrist and the pediatrician in development of pertinent research and training in child development. However, the rapidly increasing proportion of time devoted to Day Care and child development in annual meetings of such groups as the American Orthopsychiatric Association may portend such research development. Studies of adult-child interaction and similar facets of the socio-emotional climate in Day Care programs are reported elsewhere in this document.

3. Summary of Research in Health in Day Care

The scatter and relative unsophistication of studies in health aspects of Day Care apparently reflects the lack of commitment to these programs by health professionals which has been characteristic of Day Care development until recently. There are boundless opportunities for comparative studies of health care delivery through the development and evaluation of new types of health programs, or the use of some models already in existence. Two urgent needs must be met before such studies can be made: 1) recruitment of investigators who want to move out of laboratory or clinic and try something truly innovative; and 2) new methods of financing health research. Studies planned in 1966 of the effectiveness of different types of health personnel in providing health care at the Frank Porter Graham Center could not be developed, due to lack of staff and funds. The program of use which developed there will be described in the section on Current Practices.

CURRENT PRACTICES

This summary of current practices in health support in Day Care has been derived from studies reported in the previous section, correspondence carried on over the past 10 years by this reviewer with people in Day

Actual statement in the original material was "It is safe to care for infants in the Frank Porter Graham Center."

Care programs, from personal participation in committees, conferences and advisory groups, and from personal and group discussions at Annual Meetings of such organizations at the American Public Health Association, the American Academy of Pediatrics, the National Association for the Education of Young Children, the American Orthopsychiatric Association, and the Society for Research in Child Development. The variety of services and differing degrees of program development over the country increases the problem of sorting out what is fact, what is wishful thinking, and what are visions of Utopia.

Health professional involvement in Day Care at the present time has several different emphases:

1. Standard-setting, licensing, and supervision.
2. Health policy development.
3. Committee participation (Inter-agency, 4-C program, etc.)
4. Provision of direct health care to children in Day Care.
5. Development of new programs.

1. Standard-setting, Licensing and Supervision

Because standards, licensing, and supervision are so complex and variable, it is difficult to obtain lucid and up-to-date evaluation of health involvement in these regulatory aspects of Day Care. Originally designed as a protection to health and welfare of young children away from their parents, the standards, guidelines, or supervisory activities, as they are variously termed, have in many instances become unwieldy, ponderous, and outdated.⁷ Based primarily on "current usage" where "origins and ... validity are not always clear"⁸ or on untested assumptions, these regulations can, and often do prevent or delay development of new programs. The experimental or comprehensive program designed to develop new knowledge or to seek new ways to provide services may be effectively blocked or inadequately supported. A prime example is the experience of individuals in various states who tried to develop Day Care programs providing comprehensive services - especially in preventive and diagnostic health areas - to children of migrant agricultural workers. In spite of combined community efforts, including those of health-trained professionals, these programs ran into countless difficulties in state after state, where the specifications for the Day Care setting were so detailed and unyielding that the simple, short-term comprehensive program planned to meet the special needs of these families and children either could not be activated in time, or could be opened only after many expensive

⁷ Correspondence with health directors in some of the states requiring that a child have a complete physical examination prior to admission to a Day Care program reveals that many parents, operators, and physicians object to this provision, undoubtedly for different reasons. Consequently, it may often be ignored.

⁸ Academy of Pediatrics Committee on the Infant and Preschool Child. Statement in Introduction to the Day Care Standards for the Child from 0-3 (in preparation).

hours and extensive correspondence.⁹ Another similar problem was encountered when the New York City Health Department, in collaboration with Roosevelt Hospital in 1968, wished to develop a group of Day Care programs for infants under their joint Maternity and Infant Care Project. The New York City Health Code, which has the force of law, stated unequivocally that a child under three could not be cared for in a group Day Care setting.¹⁰ Once the long process of getting standards and guidelines developed has been surmounted¹¹ and the appropriate legislation or authorization attended to, the standards tend to be "cast in concrete" (McConnell, 1966). In many instances the standards considered part of the health support have been the most unyielding to change. It is important to provide protection for young children away from home, but a critical look at what is truly essential and an efficient means of frequent updating is long overdue.

2. Health Policy Development

In the development of health policy, there has been such wide divergence of opinion that health input is variable. With research findings in health aspects of Day Care so scanty, decisions are often made on state, local, and program levels that reflect only one of several possible professional viewpoints or an unawareness of practical problems of daily life. A frequently heard criticism directed toward health care and health policy in general is that health decisions are made too often with the focus on professional convenience rather than on patient need. Such a criticism is equally applicable to health policy decisions in Day Care. Reflecting the traditional viewpoint that the parent should take the responsibility for finding ways to meet health needs of his child, the health professional has in most instances, worded his recommendations for Day Care health policy to preserve this concept, without a close look at what actually is taking place, or whether the parent has been given any help in knowing what may be needed. If physicians and nurses continue to stay in their offices and clinics rather than moving actively once again into the stream of modern American culture they in the opinion of this reviewer, will have less and less to contribute effectively to health policy decisions in Day Care.

⁹ Personal communications from Dr. Belle Dale Poole, former Director of Maternal and Child Health for the southern part of California, and from Mrs. Beverly McConnell, Consultant for Migrant Preschools, Pullman, Washington.

¹⁰ Personal communication from Dr. David Harris, Deputy Commissioner of Health for the New York City Health Department.

¹¹ In the spring and summer of 1968, over 100 people from all over the state of North Carolina spent countless hours developing minimal and maximal guidelines for group Day Care, under the Chairmanship of Miss Dorothy Kiester of the Institute of Government, University of North Carolina. The group included a significant number of physicians and nurses. If one multiplies this by 50 (assuming that all 50 states carried out similar activities), the number and expense of man-hours is staggering.

3. Committee Participation

Committee participation is rapidly becoming a way of life for those involved in health support in Day Care. Since Day Care covers all facets of the daily life of a young child, a planning or coordinating committee must have an interdisciplinary composition which, however, adds to its unwieldiness. It is time-consuming to find the common base of agreement upon which such a group can effectively build forward movement, but without this common base the accomplishments of the group are minimal. Health professionals are usually busy with the day-to-day care of patients, or in providing health services of other types. When they appear at a committee meeting occasionally, or act in consultant capacity only, their effectiveness is limited. Federal legislation in 1963 provided funds to assist the states in developing Day Care services. These monies were allocated to state departments of public welfare, but the legislation specified that the state should set up an interagency committee, with representation from official health, education, and welfare agencies, to formulate plans and integrate services. A 1970 survey made by Doctor Wagner¹² shows that only 28 states have such committees at the present time. The experience of this reviewer with several state interagency committees leads her to feel that legislation does not necessarily insure effective committee function.

The 4-C Committees in various localities are another type of committee in which health input has been sought. These have developed as community groups, under the leadership of the Day Care and Child Development Council of America, Inc., to promote coordination of community Day Care services. Some communities have 4-C Committees who meet regularly and who have active participation from physicians and nurses. With strong and committed leadership, such local committees may be able to coordinate their health resources, but progress has been slow. The Day Care and Child Development Council does not include at this writing, a pediatrician on the lengthy roster of its Board of Directors, although there is one child psychiatrist to represent mental health.

4. Provision of Direct Health Care to Children in Day Care

Current practices in provision of direct health care, with the exception of a few research programs, have relied heavily on the utilization of already-existing health services. A questionnaire survey made in preparation for this Chapter, of all known Centers caring for infants, found that only one (The Frank Porter Graham Center) had its own health staff to provide direct health care. Several of the others were using medical consultants for help with policy and program development, but expected parents to get medical care for their children from a particular clinic or hospital or "from the usual source of care." Only two Centers paid their medical consultants. Several of the responding Centers expressed their dissatisfaction with arrangements for health care. Experience in Head Start programs, cited in the previous section and documented in other reports (Harrelson, 1966), exemplifies the problems that families from low income groups have in getting consistent, relevant health care and the difficulties

¹² Chairman of the Committee on Early Child Care of the Maternal and Child Health Section, American Public Health Association. Original material prepared for this Chapter by Doctor Wagner.

communities have had in getting such health care organized. The Academy of Pediatrics has had a competent and dedicated group of Head Start Consultants since 1967, available to any program who wishes their help in developing health service coverage. Hopefully, this will aid in overcoming present difficulties in organizing good programs, in completing recommended treatments, and in obtaining follow-up care.

In the newer Parent-Child Center program of the Office of Economic Opportunity in which Day Care is one of a variety of services, there seems to be similar problems of health care delivery. In the words of a pediatrician who has served as consultant to this program and to Head Start Centers, "the rule seems to be a focus on very specific health services with little or no attention to broad goals. ... A total absence of the health component is not unknown ... Health evaluations are usually done as a religious ritual... Physical examinations rarely include adequate developmental screening, and observations of the Day Care center staff rarely reach the physicians responsible for health care... It is common to treat the health record rather than the child."¹³

5. Development of New Programs

In a presidential address delivered before the Association of Pediatric Department Chairman Dr. Richard Smith (1967) expressed his concerns about the slow development of programs for comprehensive health care for children. His comments seem equally applicable to health programs in Day Care. "A universal problem today is, that while there is great enthusiasm and energy available to conceive the grand design and organizational charts for comprehensive medical care, there is often some reluctance on the part of designers actually to work in such programs, and even greater difficulty in recruiting quality personnel to staff them."

In support, however, of the good-will and motivation of pediatricians and nurses in their attempts over the country to develop new programs of care, the problem of financing such programs must be cited. It is far easier to obtain continued support, even if curtailed, for programs already in existence than it is to find new money for as-yet untested efforts -- especially if the ugly spectre of endangering the health of the child is invoked. Day Care for infants, where health support is particularly needed, has been very slow to develop. because of traditional fears of "infection." In the health field, federal and state money is almost entirely locked into categorical aid programs, with little or no local leeway in designing ways of delivering health services that are appropriate for local needs.

Another block to the development of effective health programs is described by a public health nurse (Milio, 1967): "Typically, health action settings, such as clinics or health centers, are planned, administered, and serviced by those of us who are thrice-removed from these patients - because we are professional, middle class, and white." These

¹³ Personal communication from Dr. Donald L. Fink, Associate Professor of Pediatrics and Ambulatory and Community Medicine, University of California at San Francisco Medical Center.

may be the only settings in which parents of children in Day Care can seek help with the health problems of their children, that is, if the clinic or health center happens to be open when the mother gets home from work.

As noted, the Frank Porter Graham Center is the only new project in which primary health care has been offered as part of the Day Care center program. Beginning in 1966 with two nurses (one with public health training and experience) and a contractual arrangement with a local group of pediatricians to provide medical care, the health program now has its own pediatrician, a pediatric nurse practitioner, a nurse as Director of the Operation Staff, and two licensed practical nurses. A staff of this complexity and expense would not be practical for each single Day Care program, but its experience in research, program development, and staff training is valuable in delineating how health needs in Day Care might be better met.

Since the Center opened with plans to care for infants and to admit sick children, "extraordinary precautions were taken" to prevent serious spread of epidemic disease.¹⁴ When the present Center pediatrician joined the staff in 1967, he was on 24-hour call, but found to his pleasant surprise that calls at night and over the weekend were few and far between. It soon became apparent that parents saw little need for emergency calls when the children's health problems were cared for at the Center, with the caretaking and health staffs involved in the care and communicating closely with the parents. Screening methods for vision, hearing, and other types of handicap have been incorporated into the health program, and strong emphasis has been placed on training of the child care staff in detection and evaluation of symptoms and in the use of screening devices of various types. A program of Dental Care has been initiated through the cooperation of the University School of Dentistry. This program has had continued difficulty in getting financial support, since it does not fit any of the present types of categorical federal health grant programs, either in research or program support.

Out of its five year experience, the Center Health Staff has developed a theoretical framework for the provision of primary health care in Day Care centers. This framework is presented below and concludes this section on the Development of New Programs.

Health care in four Day Care centers, each having an estimated population of 60 children, could be provided using the following people:

- (1) A part time pediatrician who would devote four hours per week to consulting by telephone and to seeing referred children. It is estimated that a mean of three visits per child a year would be needed.
- (2) One pediatric nurse practitioner, or equivalently trained public health nurse, to provide primary health care to a basic population of 240 children. An estimated mean of

¹⁴ Original material prepared for this report by the health staff of the Frank Porter Graham Center.

nine evaluations per year per sick child will be necessary and a mean of two visits per year for well child supervision.

- (3) Four half-time licensed practical nurses, one at each Day Care center, to assume an extended paramedical role in delivery of health care to young children.
- (4) One full-time Secretary to do clerical work in four Day Care centers.
- (5) A nutritionist available for consultation is useful.

Physician Responsibilities - The physician's primary responsibility is availability during daytime hours for consultation, for rechecking children, and for recommendations to the pediatric nurse practitioner as indicated. The physician and nurse will collaborate in developing the methods of providing continuity of health care. The physician will act as consultant for in-service education and case conferences.

Pediatric Nurse Practitioner Responsibilities - The pediatric nurse practitioner will have an integral role in coordinating and providing primary health supervision. Home visits will be made at intervals for health follow-up. The specific functions she will perform while at the Day Care centers are:

- (1) Well child supervision - The pre-admission history and physical exam will include an evaluation statement to assist in determining whether the Day Care program will benefit or handicap the child or whether admission of the child will be of benefit or detriment to the group. The American Academy of Pediatrics Standards will be followed for subsequent well child care.
- (2) Examination of all sick children and determining disposition either by
 - (a) providing immediate treatment with plans for follow-up,
 - (b) referring to physician for medical care or,
 - (c) seeking immediate emergency assistance
- (3) Participation in in-service education.
- (4) Recheck of all questionable vision, hearing, and developmental screening results, interpretation of findings and referral of children to the proper resource.
- (5) Reciprocal work with community organizations.

Licensed Practical Nurse Responsibilities

- (1) Performance of vision, hearing and developmental screening tests and measurement of height, weight, and head circumference prior to the scheduled well child examination.

- (2) Surveillance of sick children including observing for symptoms, obtaining histories, taking temperatures and determining when a child needs to be referred to the nurse practitioner, taking nose and throat cultures as needed.
- (3) Assistance to the pediatric nurse practitioner with the sick child, and transportation of children who need immediate medical care to a physician.
- (4) Administration of all oral medications prescribed; assistance with follow-up immunizations.
- (5) Establishment of rapport with caretakers and assistance with caretaking duties as time allows.

Time Estimates - The figures in Table 1 represent an estimate of the amount of time these services would consume based, as far as possible, on the experience in the Frank Porter Graham Center. Sick child care consumes one-half of the pediatric nurse practitioner's time. The licensed practical nurse spends about two-thirds of her medical care time in the detection, referral and care of the sick child. Her health care responsibilities account for approximately half her total working time; the remainder of her day could be devoted to other Day Care responsibilities.

Cost Estimates - Table 2 is an estimate of the personnel costs. The cost per child would be \$118 per year or \$2.36 per week after deducting ten days for vacation. These figures do not include the cost of medicine, equipment, laboratory fees or health insurance. These costs are increased over those usually cited for regular private pediatric care because the paramedical personnel have assumed responsibilities in this arrangement that the mother might have performed in the home.

Staff Training - Time devoted to upgrading the skills of the child care staff should reduce the medical care costs. The child care staff can be instructed in procedures to reduce the incidence of disease and trained to take increased responsibility, working closely with the licensed practical nurse, in the care of sick children. Aid in providing such training is often available from technical institutes and workshops conducted by the Office of Economic Opportunity or child care professional groups. In-service training should stress such areas as dental care, concepts of infectious disease control, food handling, hand washing, temperature taking techniques, growth and development and emergency first aid.

A career development program should include mechanisms rewarding staff members who participate in and learn from such programs.

SUMMARY, RECOMMENDATIONS, AND CHALLENGES

Requests for help with planning, organizing, and obtaining up-to-date information on health services for children in Day Care are legion, and growing rapidly.¹⁵ Day Care is beginning to be recognized as a means

¹⁵ Responses to Doctor Wagner's questionnaire to states and cities, and personal experience of this reviewer and others.

Table 1

ESTIMATED NUMBER OF HOURS SPENT ANNUALLY BY PEDIATRIC NURSE
PRACTITIONER AND LICENSED PRACTICAL NURSE PROVIDING HEALTH CARE

Primary Health Care Functions	PNP hrs. per year for 240 children	LPN hrs. per year for 60 children
<u>Sick Child Care</u>		
Surveillance*	0	208
Medications*	50	167
Treatment*	10	84
Examinations and rechecks*	1080	250
TOTAL	1140	709
<u>Well Child Care</u>		
Vision screening**	5	25
Hearing screening**	2	8
Developmental screening**	10	40
Height, weight, head circum.***	3	30
Well child supervision	280	0
TOTAL	300	103
<u>Supportive Functions</u>		
Home visits*	240	0
Transportation	150	100
Consultation	70	50
Preparation for teaching	50	0
In-service education	50	50
TOTAL	560	200
GRAND TOTAL	2000	1012

* Time for recording findings is included in estimate

** Time for rechecking and notations on record is included in estimate

*** Measurements to be taken every 2 months

Table 2

ESTIMATED ANNUAL COST OF HEALTH CARE PERSONNEL IN FOUR COMMUNITY
DAY CARE CENTERS

Health Care Personnel	Annual Cost	No. hrs. per week	No. weeks per year	No. hrs. per year
1 part time pediatrician*	\$ 3,500	4	50	200
1 pediatric nurse practitioner	12,000	40	50	2000
4 half time licensed practical nurses	10,000	80	200	4000
1 full time secretary	5,000	40	50	2000
TOTAL PERSONNEL COST	\$30,500			

* Based on 10% of a gross annual income of \$35,000

making effective contact with the child who might not otherwise get health care, but efforts to change present methods of health care are slow and cautious. The numerous conferences devoted to discussion of problems of child health and delivery of health services (the 1965 Health Conference of the New York Academy of Medicine, the 6th Bi-Regional Conference sponsored by the Children's Bureau in Minnesota and Michigan in 1967, the five conferences held in 1967 by the National Institute of Child Health and Human Development, the Conference on Health Services for Children and Youth sponsored in 1969 by the American Public Health Association, and the various conferences held by Joint Commission on Mental Health of Children from 1967-1969) considered many aspects of the changing American culture and the inadequacies of present health-service delivery systems. However, only one group, the Joint Commission on Mental Health of Children (1970) cited the child development program or Day Care program as an important way in which comprehensive services to the child early in his life could be initiated as a preventive and protective health measure.

In the opinion of this reviewer, the health field faces three choices in further development of health support in Day Care. The first would continue the present chaotic system, making stronger efforts to carry out continuous and intensive educational programs addressed to health professionals and families, and hopefully pooling present community talents in more effective delivery systems. The second would take advantage of a growing trend to train new types of health professionals, using nurses (Silver, 1967; Andrews, 1970) or other non-medical personnel to provide health care for these children in a clinic, a neighborhood health center, or a private physician's office. The third would develop health care as an integral part of the Day Care program itself, allowing the health component to blend with the educational, cognitive, emotional, and learning aspects of the program. Mental health considerations are of primary importance in such health care programming. All too often, the word "health" is equated with physical health or illness. Dr. Albert Solnit, in original material prepared for this review, points out the importance of supporting the child at all levels of his development, of minimizing chaotic environmental experiences and abrupt changes, and of keeping parents in focus at all times. "The younger the child is, the more vulnerable he is to separations that have an erratic or sudden quality. This is another reason why Day Care programs for children under 2½ years must be inviting places where mothers and fathers can spend time and where the child is impressed by the positive interest of the staff."¹⁶ In a presentation at the Annual Meeting of the American Orthopsychiatric Association in March 1970, Dr. Solnit also pointed out the problem facing program planners in regard to the confusion between scientific and humanistic values. He stated: "The problem of needing scientific evidence before we can develop programs has interfered quite radically with program development."

Arguments against developing a health program within the Day Care center setting cite the expense of such a plan, the difficulty of enlisting health personnel for such a limited role, the need to focus on family

¹⁶ Original material prepared by Dr. Albert Solnit and Dr. John Schowalter.

health rather than on the child alone, and the more basic problems of delivery of all health care services. As these arguments continue, children in Day Care continue to receive less than adequate health support. From personal experience, this reviewer has found that often a family can best be reached by providing services for its children. It is her hope that programs similar to that at the Frank Porter Graham Center will be allowed to develop through adequate financing, and that they will be evaluated with other types of health programs to give us some badly needed answers on cost effectiveness, on family health needs, and on the most efficient ways of using health personnel.

Health professionals face a major challenge in re-defining their roles in health support in Day Care. Although such change is difficult, and at times painful, it is essential if we are to meet the health needs of the millions of young children in Day Care in this country.

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CHAPTER 12

MALNUTRITION AND EARLY DEVELOPMENT

Herbert G. Birch

INTRODUCTION

It is indisputable that nutrition of adequate quantity and quality is essential for the growth and development of infants and children. Abraham Jacobi, in establishing one of the foundations for modern scientific pediatrics almost a century ago, focused attention upon infant feeding as an essential and indeed central component in child welfare. More recently, President Kennedy, in requesting the establishment of a National Institute of Child Health and Human Development, within the National Institutes of Health, defined as one of its purposes the need to study "the effect of nutrition on growth and other basic facts needed to equip the child for a healthy, happy life" (Aldrich, 1965).

In the present review we intend to explore the relation of nutrition to child care by considering: a) the relation of nutrition to growth; b) the actual and potential effects of malnutrition on mental development; c) the social distribution of nutritional risk; d) the effects of poor nutrition on childbearing capacity and outcome; e) nutritional practices which adversely effect growth; and f) the interaction of nutrition and infectious illness. The reader should note that these topics, as listed, do not necessarily match the section headings and may reappear several times throughout this chapter in relevant contexts. The final section will discuss some of the implications of this evidence for programs of Day Care.

GROWTH AND NUTRITION

As early as 1936, John Boyd-Orr (1936) demonstrated, on the basis of anthropometric data available from the 1880's onward, a clear social class gradient for growth and achievement in boys of school age in Britain. His studies showed that even though the average heights for children in all social classes had risen from 1880 to 1930, the relative difference between different social classes had not changed. He interpreted these findings as suggesting that, although such differences could be attributable in part to heredity, environmental differences--particularly those related to nutrition--were probably highly influential in producing the observed gradient of height.

Such an interpretation received support from studies in secular trends in immigrant groups moving from nutritionally more adverse to nutritionally more propitious environments. Franz Boas (1910) was among the first to demonstrate that within a given ethnic group (Jews), children of immigrants born in the United States differed from their parents in height as well as in head shape. By comparing the heights of Jewish immigrant children born abroad with those born within ten years of their parents arrival in the United States and with those born of mothers who had been resident here for more than ten years, he was able to show that children born in Europe were as a group consistently shorter than the mean; that those born to parents after more than ten years residence were consistently taller than

the mean; and that those born of parents with less than ten years of residence fell between the other groups and clustered around the mean height of the sample as a whole.

More recently, studies of American immigrant groups have served to confirm Boas' findings. Greulich (1958) discovered that American-born Japanese in California, in 1957, had a stature which exceeded that of native-born Japanese, which among boys was "by an amount greater than the increase which has taken place in the average stature of boys in Japan since the beginning of the present century." Nisei girls reflected a similar growth trend as compared with girls born in Japan. Greulich attributed these changes to environmental factors, that is, to the less adequate diet and other substandard living conditions which are conducive to poor growth in the country of origin as contrasted with conditions in the United States. Abramowicz (1969) studied boys of Puerto Rican descent in New York City schools. He found that boys who had been born in the United States were tallest; that those who had come to live in this country by the age of six years were next tallest; and that those born in Puerto Rica and resident age there until six years of age were shortest. Though it is indeed likely that height may have been influenced in part by the genetic pool from which the individuals derived, particular environmental conditions, most probably those for nutrition and health, significantly affected growth achievement by school age.

Studies of children exposed to excessive degrees of nutritional risk, such as famine, have also supported the view that growth is highly dependent upon nutrition. Hiernaux (1964), in his follow-up studies of children exposed to famine in Africa, clearly demonstrated the residual effects of exposure to famine on height in late adolescence. Mitchell (1962) demonstrated that the increase in stature in Japanese children in the decade between 1950 and 1960 was as great as that observed in other countries in three or four decades. In contrast, she found that Japanese children (1964) living in orphanages where diets were not improved over the same period did not share in the dramatic growth change and were consistently below the national mean in height for children of the same age. Follow-up studies of children treated for severe malnutrition in infancy (Graham, 1966, 1967) have also indicated stunting in later life. The evidence is indisputable that in endemical short groups an increase in stature in the next generation follows upon an improvement in nutritional and economic status.

Animal studies of growth have long shown that experimental malnutrition and subnutrition result in stunting of the adult animal. In the 1920's, Jackson demonstrated that experimental malnutrition produced both reduced body size and brain size (Jackson and Stewart, 1920; Jackson, 1925). Moreover he suggested that the condition of risk was not effective at all ages but had its greatest residual effect in relation to the time of life at which the nutritional stress had been introduced, and that the youngest animal was the most affected. From the 1950's onward, Widdowson, McCance and their colleagues have demonstrated in experimental animals who are severely malnourished during critical periods in infancy, that catch-up in growth is incomplete even after the introduction of a fully adequate ad libitum diet, and that the effect obtained was related to the time of life at which the stress was experienced (Widdowson, *et al.*, 1960; Widdowson and McCance, 1960; 1963; McCance and Mount, 1960). In more recent studies Widdowson, as well

as Dobbing, have shown that even modest degrees of subnutrition during the pre-weaning period in rats result in a diminution of body size which is not fully compensated for by growth spurts during recovery (Dobbing, 1964; Dobbing and Widdowson, 1965; Widdowson, 1965).

Most important, these investigations have shown that all tissues and organs are not equivalently affected by malnutrition in early life. Davison and Dobbing (1966) have demonstrated that the brain--an organ which is growing and differentiating very rapidly during infancy--is one of the systems most vulnerable to insult. They have reported that myelination is incomplete in underfed nurslings and that full recovery does not accompany nutritional rehabilitation at later ages. These studies have been extended by Zamenhof (1968) and others (Winick, 1968; Winick and Rosso, 1969) to include a consideration of cellular growth; their findings indicate that animals and children who have experienced significant degrees of malnutrition in infancy have a permanently reduced number of brain cells--a loss which subsequent good nutrition does not normally repair.

Thus, from the animal, as well as human studies it appears that there is a "critical period" for the development of brain. If inadequate conditions of nutrition exist during this period brain growth and differentiation are impaired. Once the critical period is over, adequate conditions for the restoration of loss are no longer present and as a consequence nutritional rehabilitation introduced after the critical period does not result in the return to normalcy of the affected central nervous system. Similar findings have come from the studies of Platt and his associates (Platt, 1962; Platt, et al., 1964, 1965).

The facts considered up to this point demonstrate that life in more affluent circumstances, accompanied by improved health care, and particularly by more adequate and varied supplies of food, results in larger children having more brain cells and more complete myelination of the central nervous system. However, is bigger better or is bigger merely different from smaller? Clearly, arguments can be advanced to support this view that bigger is by no means necessarily better. Further, the answers to functional questions cannot be given by a consideration of growth achievements alone. They require a comparative examination of the behavioral and physiologic outcomes which ensue under adequate and inadequate conditions for growth; only thus can we estimate the value which attaches to being bigger.

If growing more fully as an infant and child means that the individual will be at lesser risk for illness, at a higher likelihood for better general health, for higher levels of intellect and for functioning as a more effective social organism and adult reproducer--with fewer abnormalities of fetal growth, pregnancy and delivery--then indeed bigger is better. Consequently, we must turn to a consideration of the relevance of the organism's nutritional experiences to functional outcomes.

Clearly, a consideration of all possible functional sequelae would be beyond the scope of this review. Rather than aiming at universality, we will center our concerns on behavioral outcomes and the ways in which nutritional inadequacy may either directly or indirectly affect them.

FUNCTIONAL CONSEQUENCES OF MALNUTRITION

Concern with the functional consequences of early nutritional inadequacies

has not kept pace with the studies of the effects of different conditions of stress on physical size and organ growth and differentiation. Despite the fact that many of the first scientific and systematic inquiries into the nutritional needs of people were associated with behavioral aberrations (viz. dementia as a prime symptom in pellagra and mental disorder associated with thiamine deficiency) it is only in the last two decades, and particularly over the last ten years, that any systematic attention has been given to the possibility that malnutrition in the pre-school years may contribute to intellectual backwardness and learning failure. In part, the lack of research has derived from the difficulties involved in assessing the influence of earlier events upon later outcomes. Clearly, the analysis of such questions requires longitudinal and follow-up studies which are notoriously difficult to conduct and expensive, both in money and time, to sustain. Moreover, adequate follow-up studies of the effects of nutrition on later behavioral competence depend upon our ability to readily identify the children at nutritional risk during infancy and to find them once again in the school years--a difficult task indeed.

Another factor which has inhibited both inquiry and interpretation of the association between malnutrition and mental backwardness has been the fact that malnourished children most frequently come from groups in the population who are impoverished. When lowered intellect is demonstrated in children coming from such groups a popular result has been simplistic interpretations which neglect the possible influence of antecedent nutritional and health factors. Explanation has tended to focus either upon the possibility that these are merely the dull children of dull parents or that the general poverty of the environment has resulted in experiential deprivations sufficient to account for defective intellectual growth (Birch and Gussow, 1970). To disentangle the interaction of nutritional and other environmental circumstances is a complex task requiring multidisciplinary studies and interdisciplinary collaborations. The fruitful establishment of such disciplinary relationships and conjoined consideration of nutrition, health and social experience has begun to take place only very recently and is a trend which needs much greater support and encouragement.

Finally, certain circumstances necessary for research on the relation of malnutrition to mental development in human populations have only recently become available. In particular, if one chooses the follow-up study at school age of samples of children who in infancy experienced significant degrees of malnutrition and undernutrition as a useful model for examination of this issue, the first requisite is the presence of a population of survivors. Until recently, as Champakam, *et al.*, (1968) have put it, "...survival was the main concern. Awareness and knowledge of the biochemical pathology of malnutrition and the availability of more efficient means for better diagnosis and treatment have reduced the immediate mortality among malnourished children. In direct proportion to the success in this regard is the clear possibility of increasing pools of survivors who may be handicapped in a variety of ways and for variable periods of time" (p. 844). The development of a large pool of survivors as a consequence of improved clinical practices has been accompanied by a growing concern with possible residual handicap and has resulted in a variety of studies designed to assess the degree to which such handicap may be attributable to the antecedent malnutrition. Thus, although concern with the functional consequences of early nutritional inadequacies has not kept pace with work on the effects of different conditions of nutritional stress on physical size, organ growth

and differentiation, recent years have contributed a body of work, based upon a number of different approaches which have shed light on functional outcomes. These studies and their results are best viewed in relation to the investigative models that have been used.

A number of model systems have been employed to explore the relationship of malnutrition to behavior. At the human level these have consisted of: a) comparative studies of well- and poorly-grown segments of children in populations at risk of malnutrition in infancy; b) retrospective follow-up studies of the antecedent nutritional experiences of well-functioning and poorly-functioning children in such populations; c) intervention studies in which children in the poor risk population were selectively supplemented or unsupplemented during infancy and a comparative evaluation of functioning in both of these groups; d) follow-up studies of clinical cases hospitalized for severe malnutrition in early childhood; and, e) intergenerational studies which seek to relate the degree to which conditions for risk of malnutrition in the present generation of children derived from the malnutrition or subnutrition experienced by their mothers when these latter were themselves children. Studies of human populations have been supplemented by a variety of animal models. These animal studies have been: a) direct comparative follow-up investigations of the effects of nutritional difficulties in early life on subsequent behavioral competence; and, b) the study of the cumulative effects of malnutrition when successive generations of animals have been exposed to conditions of nutritional stress. The available evidence will be considered in relation to these investigative models.

STUDIES OF SUB-SAMPLES OF CHILDREN IN POPULATIONS AT RISK

One of the first efforts at systematic study of the relation of malnutrition to behavior in children of school age was carried out shortly after World War I in the Volksschulen of Trier, Germany, by Dr. Smiley Blanton (1919) a medical officer in the Department of Sanitation and Public Health, Civil Affairs, in the American Army of Occupation. This investigation was carried out because teachers and school officials had complained that malnutrition, caused by war conditions, had led to great deal of mental deterioration which was reflected in poor school work and in a number of nervous disorders in the students. In response to this complaint, it was decided to supplement the usual physical examination of children by psychiatric study and "to determine as far as possible, just what the conditions were... (and) to make a psychiatric and psychological study of several thousand children forced to subsist for three years on a rigid and inadequate diet" (p. 343). The study sample consisted of 6500 children between the ages of five-and-one-half and 14. The investigator identified all children who were retarded in their grades by one year or more, children who were abnormally "nervous," children who had any organic nervous disease, and children suffering from symptoms of psychoses or neuroses. These hard data were supplemented by interviews with teachers concerning mental and nervous changes which occurred in the children during the war, by direct observations of the children in school playgrounds and at home, by interviews with parents, and by psychological tests of those children presumed to be suffering primarily from malnutrition in order to determine the relation of malnutrition to specific changes in mental abilities such as comprehension, learning ability, memory span and quickness of association. The survey indicated that at least 40% of the children studied suffered both from current and antecedent malnutrition to such a degree as to have produced

a significant decrease in the energy available for all aspects of functioning. In addition, it was estimated that the number of borderline defectives had increased and thus totalled approximately one percent of the school population and that school failure, most particularly in the youngest children, had been doubled over the prewar rate.

In many ways this study was naive; however, it pointed to a possible influence of antecedent exposure to nutritional conditions of risk on mental and school functioning. The findings of this study were certainly inconclusive. It was difficult, it not impossible, to define whether or not the dysfunctions noted in the children derived from their having experienced significant degrees of malnutrition in the course of their earlier development or whether their difficulties in school stemmed from exposure to four years of war, to family disruption and/or to contemporary conditions of food lack which may have produced irritability, reduced motivation and distractibility. Since no distinction was made between antecedent malnutrition and current hunger the influence of this last factor in producing the effects could not be assessed.

In the inter-war years, little follow-up work was done on the relation of malnutrition to mental functioning, although there was a burgeoning of interest in the physical sequelae and consequences for physical health associated with antecedent exposure to conditions of nutritional stress. However, a resurgence of interest in the potential relation of malnutrition to intellect and school success or failure accompanied the social and political events that followed the second World War. The emergence of new and independent nations, the dislocations produced by the war and the reorganization of the forms of social systems and patterns of child care on a world scale, together with the increased visibility of the distress which accompanied the process of growing up as an infant and child in disadvantaged circumstances, rearoused both a public and an investigative concern with malnutrition in infants as a condition of life rather than as an accidental or dramatic interruption of an otherwise felicitous course. By then, it was clearly recognized that children in large numbers grew up malnourished not merely because of famines or of other apocalyptic crises, but because the life styles of the communities in which they lived were ones chronically capable of producing such effects.

The first concern was, of course, the treatment and survival of seriously ill malnourished children. However, this was intimately coupled with a concern with the possibility that residual long-term consequences on growth and mental development could attach to children who survived the disorder. For example, Trowell, Davies and Dean (1954) noted that, although it was likely that severe malnutrition had permanent residual sequelae for learning, "nothing is known about the completeness of recovery from kwashiorkor."

Cravioto, DeLicardie and Birch (1966) have reviewed much of the earlier evidence and have repeated their own findings on nutrition, growth and neurointegrative development in Guatemalan Indian children living in a rural village. Detailed prior information on the village indicated a significant prevalence level of both serious acute malnutrition and prolonged undernutrition during infancy and the pre-school years. It was therefore possible in studying children of school age to examine the effects of such an earlier exposure by comparing children who had been exposed to

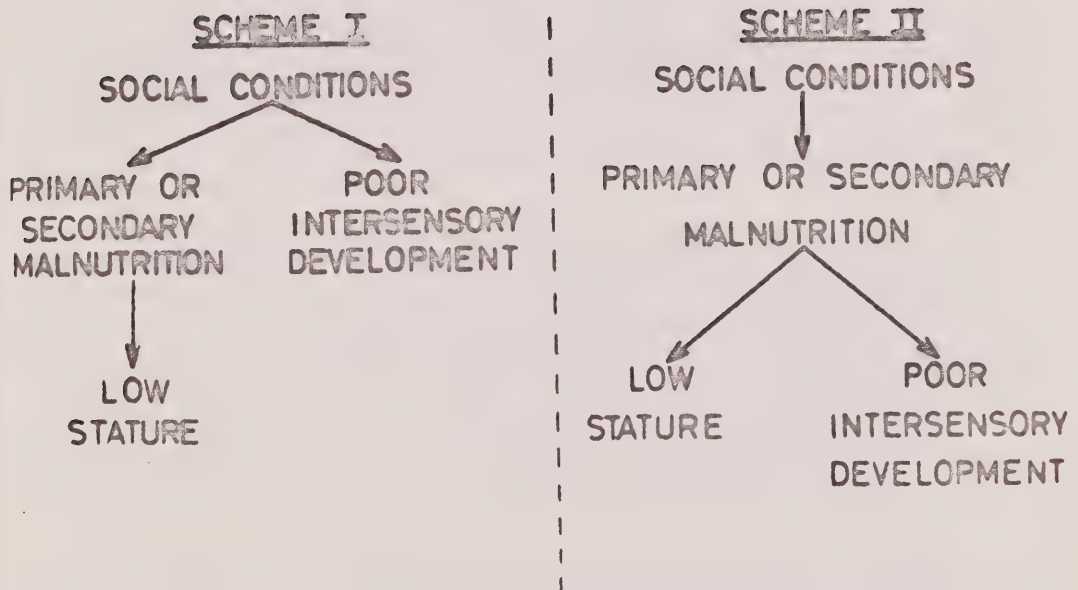
nutritional insult with those who, for any of a number of reasons, had been spared this experience. Because children who experience chronic under-nutrition during the pre-school years are significantly shorter than children in the same social status, community and ethnic groups who have been relatively better fed, antecedent exposure to malnutrition was defined retrospectively in the Guatemalan study on the basis of substandard height for age. Conversely, relatively well nourished children were defined as those who were relatively well-grown. On this basis, two groups of children were defined in the age range from six to 11 years. The first, and presumably previously underfed group, consisted of children in the lowest quartile of the height distribution for all school children in the village. The second, and relatively better fed group, comprised the tallest 25% of the children. The two groups at each age level were compared with respect to neurointegrative competence, as reflected in the ability to carry out intersensory judgments. This indicator was selected because of the importance of intersensory competence as an indicator of neurointegrative integrity and because the ability to carry out intersensory judgments has been shown to follow a clearly defined developmental course in normal children in the age range studied (Birch and Lefford, 1963).

Clearly, in conducting such a study at least three variables had to be controlled when height for age was used as an index of exposure to prior nutritional inadequacy. The first was that height differences could merely be reflecting familial differences in stature; the second, that shortness is but another manifestation of general development lag; and finally, that the shorter children came from home environments at significantly lower cultural levels. These factors were controlled for by: a) examining the relation between the height of children and parents; b) comparing tall and short children of the same age in populations of children without antecedent conditions of nutritional risk; and c) comparing the short and tall groups studied with respect to such factors as socioeconomic status, housing, and parental education.

When these non-nutritional variables were controlled, it was found that in the rural Guatemalan children, significant differences in height at school age were accompanied by significant differences in intersensory integrative ability. The authors indicate that the inadequacy in intersensory integrative competence could represent either the effects of earlier malnutrition alone or these effects in association with more general sub-cultural differences between the groups. Consequently, they proposed two schemes to express the hypothetical relationships between social conditions, malnutrition, poor growth and poor intersensory development. These are reflected in Figure 1 below.

One major constraint on interpreting the findings of this study lies in the inferential nature of the definition of antecedent malnutrition. While it is likely that the shorter children were more exposed to nutritional risks in the pre-school years, a definite attribution of earlier malnutrition required anterospective data which were not available on the population studied. The investigators were well aware of this limitation and are currently conducting a longitudinal ecological study of growth and development on a total annual cohort of births in a community at a relatively high level of risk of malnutrition in infancy and the pre-school years (Cravioto, et al., 1969).

Figure 1



Follow-up Studies of Children with Clinically Treated Malnutrition

Because of the difficulties in carrying out both anterospectively oriented longitudinal studies and of defining the fact of antecedent underlying malnutrition in populations of children retrospectively studied, a number of investigators have chosen to approach the problem of the relation of malnutrition to intellectual growth by studying the intellectual sequelae of severe, acute infantile malnutrition. Generally, but not exclusively, these workers have focused upon the follow-up study of children whose malnutrition in infancy had resulted in either the syndrome of nutritional marasmus or of kwashiorkor. Both syndromes involve deficiencies in the intake of both proteins and calories and are considered by many as the most serious nutritional problems in developing countries (Jelliffe, 1959; Scrimshaw, et al., 1968). Marasmus, a disorder produced by insufficient intake of both proteins and calories, tends to be most common in children under one year of age. Kwashiorkor, a syndrome associated with inadequate protein intake and often, but not always with reduced calorie intake as well, is accompanied by edema, pigment changes and skin lesions. Waterlow, Cravioto and Stephen (1960) noted defects in the ability of children who suffered from such disorders in the acquisition of language. Cabak and Najdanvic (1965) followed up children who had been admitted for marasmus to the Hospital for Sick Children in Sarajevo between 1951 and 1957, most of whom were less than 12 months of age at the time of hospitalization. At school age, these children were found to have lower levels of IQ than healthy Serbian children.

Interpretation in these studies is made difficult by the nature of the comparison group. For example, the Yugoslav workers compared the performance of their previously malnourished children with those obtained for Serbian children in general. They recognized the absence of control for socioeconomic and cultural differences between the groups but argue that "even if all the undernourished children had come from families of 'non-qualified' workers their IQ was below the mean value...for this group" (p. 533). They also indicated that there was a significant correlation between the severity of illness as estimated by the child's deficit in the expected weight for age on his original admission and his IQ's at school age.

Champakam, Srikantia and Gopalan (1968) sought to take the particular social and cultural attributes of malnourished children into account in their follow-up study of 19 children who had recovered from kwashiorkor. These children represented a set of cases reflective of the several hundred cases of kwashiorkor treated over a period of several years by the clinical unit of the Nutritional Research Laboratories in Hyderabad. The children studied were admitted to hospital for acute severe malnutrition between the ages of 18 and 36 months. At the time of follow-up, they were between eight and 11 years of age. Each child in the previously treated group was matched for age, sex, religion, caste, socioeconomic status, family size, birth order and educational background of the parents with three children who had never been hospitalized for malnutrition. All control children also belonged to the same class in school as the children who had previously had kwashiorkor. Both intelligence tests and tests of intersensory function were studied. These workers found a significant difference between groups on intelligence tests which was most marked in the younger age group. They noted, too, that intersensory organization was poorer in

cases than in the controls. Retardation was most apparent in perceptual and abstract abilities.

Despite the elaborate nature of the controls used by Champakam, *et al.*, (1968) it was possible that intrafamilial differences of important kinds could still exist between the groups. Such differences have previously been noted by Cravioto, *et al.*, (1967) and by Richardson (1968). Therefore it appears necessary to compare children who have experienced malnutrition in infancy with members of their own sibships who have not experienced such illness. Since malnutrition characteristically does not embrace all children in a family, such a study is entirely feasible. As yet unpublished inquiries by Birch, Hertzog and Tizard are the first to use this model. In the first study (Birch, *et al.*, 1970) measured intelligence at school age was compared in 37 previously malnourished Mexican children and their siblings. The malnourished children had all been hospitalized for kwashiorkor between the ages of six and 30 months. The siblings had never experienced a bout of severe malnutrition requiring hospitalization. Sibling controls were all within three years of age of the index cases. Full scale Wechsler Intelligence Scale for Children (WISC) IQ of the index cases was 13 points lower than that of the sibling controls. Verbal and performance differences were of similar magnitude and in the same direction. All differences were significant at less than the 0.01 percent level of confidence. The authors indicate that their findings are in agreement with those previously reported by Barrera-Becerra (1963), Cabak and Najdanvic (1965) and Champakam, *et al.*, (1968) and argue that the use of sibling controls removes certain difficulties in the interpretation of earlier findings.

In the second study (Hertzog, *et al.*, 1970) a large sample of male Jamaican children (n=74) who had been hospitalized for severe malnutrition before they were two years of age, were compared with their brothers nearest in age, and with their classmates whose birthdates were closest to their own. All children were between six and 11 years of age at follow-up. On examination, neurologic status, intersensory competence, intellectual level, and a variety of language, perceptual and motor abilities were evaluated. Intellectual level was significantly lower in the index cases than in either the siblings or the classmate comparison groups. As was to be expected, the order of competence placed the classmate comparison group at the highest level, the index cases at the lowest, and the sibs at an intermediate level. The depressed level of the siblings in relation to classmates suggests one disadvantage in sibling studies. Clearly, the presence of a child hospitalized for severe malnutrition identifies a family in which all children are at a high level of risk for significant undernutrition on a chronic basis; the index child merely represents an instance of acute exacerbation of this chronic marginal state. Therefore, the index cases and sibs are similar. Both share a common chronic exposure to subnutrition and differ only in that the index cases have additionally experienced a superimposed episode of acute nutritional illness. Thus, the use of sibling controls, in fact, does not compare malnourished with non-malnourished children. Rather, it determines whether siblings who differ in their degrees of exposure to nutritional risk differ in intellectual outcomes and supports the view that graded degrees of malnutrition result in graded levels of intellectual sequelae.

Other follow-up studies of acutely malnourished children such as those

of Cravioto and Robles (1965) in Mexico, Pollitt and Granoff (1967) in Peru, Botha-Antoun, Babayan and Harfouche (1968) in Lebanon, and Chase and Martin (1970) in Denver, have all been shorter-term follow-ups of younger children. Cravioto and Robles (1965) studied the developmental course of returning competence in children hospitalized for malnutrition during the period of their treatment and recovery while in the hospital. Their findings indicated that behavioral recovery was less complete in the youngest children (hospitalized before six months of age) than in older children. They posed the possibility that this earliest period of infancy was the one most critical for insult to developing brain and thus to eventual intellectual outcome. However, the study of Jamaican children (Hertzog, *et al.*, 1970) did not yield findings which supported this possibility. In the latter study examinations were made of approximately equal numbers of children who had experienced an acute episode of malnutrition in each of the four semesters of the first two years of life. Equivalent depression of IQ was found to characterize each of the groups when these were separated by age at hospitalization.

In the Lebanese and Peruvian as well as the Venezuelan (Barrera-Moncada, 1963) studies noted above depression in intellectual level tended to be found in the index cases. In the American study (Chase and Martin, 1970) and in a Chilean study (Monckeberg, 1968) the findings have shown depression in intellectual function in the pre-school years in children hospitalized for malnutrition during the first year of life. The American investigators working in Colorado found that 20 children, who had been hospitalized for malnutrition before the age of one year, had a mean developmental quotient on the Yale Revised Developmental Examination which was 17 points lower than that achieved by a matched control group of children who had not been malnourished. All of these studies strongly suggest that malnutrition of severe degree in early life tends to depress the intellectual functioning at later ages.

In summary, the follow-up studies of children who have been exposed to hospitalization for a bout of severe acute malnutrition in infancy indicate an association of significant degree between such exposure and reduced intellectual level at school age. The studies, involving careful social class controls and sibship comparisons, suggest that it is not general environmental deprivation but rather factors which are uniquely related to the occurrence of severe malnutrition that are contributing to a depression in intellectual outcome. However, there is some indication that different degrees of recovery may be associated with different post-illness conditions. Thus, urban and rural differences in intellectual outcomes are reported in the sibship comparison studies of Jamaican children referred to earlier (Hertzog, *et al.*, 1970).

Such an association provides strongly suggestive, but by no means definitive evidence, that malnutrition directly affects intellectual competence. As Cravioto, DeLicardie and Birch (1966) have pointed out, at least three possibilities must be considered in the effort to define a causal linkage. The simplest hypothesis would be that malnutrition directly affects intellect by producing central nervous system damage. However, malnutrition may also contribute to intellectual inadequacies as a consequence of the child's loss in learning time when ill, through the influences of hospitalization, and prolonged reduced responsiveness after recovery. Moreover, it is possible that particular exposures to mal-

nutrition at particular ages may interfere with development at critical points in the child's growth course and so provide either abnormalities in the sequential emergence of competence or a redirection of developmental course in undesired directions. Although certain of these possibilities (such as hospitalization and post-illness opportunities for recovery) can be explored in children, others for moral and ethical reasons cannot. Thus, it is impermissible to establish appropriate experimental models either for interfering with development at critical periods or for inducing brain damage. The approach to these problems requires either detailed analyses of naturally occurring clinical models or the development of appropriate animal investigations.

Animal Models

In the main, animal models have been used for examining the effects of nutritional inadequacies upon physical growth achievement. As noted previously, we have known since the 1920's that extreme experimental malnutrition in animals results in reduced size as an adult, and moreover, that if nutritional deprivation is introduced at particular stages in growth and development, brain size is permanently affected (Jackson and Stewart, 1920; Jackson, 1925). These early investigations were extended and supplemented over the next 40 years by the studies of McCance, Widdowson, Davison, Dobbing and Winick to which we have already referred. In sum, these inquiries indicate that, in contrast to the adult whose nervous system is relatively insulated from the effects of malnutrition and spared from damage, the young organism is not spared if the malnutrition is experienced at times of life which coincide with certain "critical periods" for brain growth and differentiation.

Some confusion in the interpretation of evidence has occurred because of the use of different species, since in different organisms the so-called critical periods occur at different points in the developmental course. For example, brain growth and differentiation in the pig occurs most rapidly in the period prior to birth whereas in the rat the most rapid growth occurs when the animal is a nursling. In human beings, the period for rapid growth is relatively extended and extends from mid-gestation through the first six through nine months of post-natal life. In man, the brain is adding weight at the rate of one to two mg/ minute at birth and goes from 25 percent of its adult weight at birth to 70 percent of its adult weight at one year of age. After this age, growth continues more slowly until final size is achieved. Differentiation as well as growth occurs rapidly during the critical periods; myelination and cellular differentiation tend to parallel changes in size.

Since brain growth in different species occurs at different points in the life course, it is apparent that deprivations experienced at the same chronologic ages and life stages will have different effects in different species. Thus, deprivation during early post-natal life will have little or no effect upon brain size and structure in an organism whose brain growth has been largely completed during gestation. Conversely, intrauterine malnutrition is likely to have only trivial effects on the growth of the brain in species in which the most rapid period of brain development occurs post-natally. When these factors are taken into account, the data leave no doubt that the coincidence of malnutrition with rapid brain growth results in decreased brain size and in altered brain composition.

The animal studies also have shown that the enzymatic circumstances necessary for proper brain growth and development are time-limited. Thus, adequate nutritional circumstances introduced after an insult has occurred during the period of most rapid growth and development will have no or only incomplete rehabilitative consequences. The reason appears to lie in the fact that, though such nutritional improvement may indeed provide the metabolites necessary for growth, the physiologic condition of the brain is such as to make it unable to properly utilize these resources for structural repair. Therefore, while adequate nutritional circumstances represent a necessary condition for brain growth, they alone do not provide sufficient conditions for it. Such sufficient conditions exist only at those times in the life course when adequate nutrition as well as the appropriate enzymatic organizations for tissue growth and differentiation are simultaneously present and functional.

The great bulk of relevant animal investigation has concerned itself with experimental models that result in the production of severe degrees of malnutrition. However, negative consequences for nervous system development are not restricted to severe deprivations but accompany modest degrees of nutritional inadequacy as well. Thus, Dobbing (1964), Davison and Dobbing (1966), and Widdowson (1966) have all investigated the effects of modest degrees of nutritional deprivation on developing animals. Their principal method has involved the rearing of nursing rats in excessively large litters. Thus, in a given variety of rat which normally has six to eight pups in a litter, they have increased litter size to 12 by adding similarly aged foster pups to the natural litter.

In such litters the food supply is inadequate, but the young animals exhibit no clinical signs of serious nutritional deprivation, except small size. However, even in these modestly nutritionally deprived organisms brain size, composition and the number of brain cells are reduced. Consequently, at a structural level the animal studies have shown clearly that malnutrition both of moderate and severe degree produces permanent central nervous system changes when the nutritional insult is experienced at relevant points in development. These studies on controlled animal populations, therefore, confirm the findings on brain growth and cell number reported in studies of nutritionally disadvantaged human infants.

But does decrease in brain size and cell number necessarily produce reduced levels of adaptive capacity? As I have pointed out elsewhere (Birch and Lefford, 1963; Cravioto, Birch, *et al.*, 1969) changes in brain structure and, indeed, even traumatic damage to the brain, need not be accompanied by functional consequences for behavior. Therefore, one cannot directly infer that negative consequences for intelligence or behavior have occurred from the anatomic and biochemical evidence alone. It is necessary to study the behavioral effects of malnutrition in and of themselves before such a conclusion can be firmly drawn. The recognition of this requirement has led to a series of behavioral studies in animals designed to determine whether or not the degrees of malnutrition which produce anatomic alterations have behavioral consequences.

As long ago as 1942, Riess and Block (1942) reported that rats raised on diets which were inadequate in certain essential amino acids exhibited inferior learning capacity later in life. More recent studies such as those of Bevan and Freeman (1952), Cowley and Griesel (1959, 1963a) and

Rajalakshmi, et al., (1965) have indicated that rats reared on protein diets exhibit deficiencies in learning.

In most of these studies, however, it is difficult to determine clearly whether the behavior outcomes reported really derived from a primary learning deficiency induced by malnutrition. Unfortunately, most of the training methods used food as a reward. Since it is well known that food lack in early life affects eating rate and food motivation generally (Mandler, 1958; Elliott and King, 1960; Barnes, et al., 1968; Levitsky and Barnes, 1969) it is possible that motivational differences rather than disturbances on learning per se may have influenced outcome.

When an effort has been made to eliminate food motivation and avoidance training used (Bernhardt, 1936; Guthrie, 1968) so that escape from aversive stimuli is made the motivating factor in the learning task, new problems for interpretation have arisen. There is good reason to believe that previously malnourished animals differ significantly from well nourished ones in their sensitivity to such negative stimuli as cold water and shock and a recent report by Levitsky and Barnes (1970) provides evidence in support of this view.

The difficulties in interpreting the relation of antecedent malnutrition to learning are even greater than the above methodologic considerations suggest. They may be exemplified by considering one of the most popular methods for inducing malnutrition--the technique of increased litter size used by Widdowson and her colleagues. It is certainly true that rats raised in large litters are less well nourished than those raised in smaller ones. However, rats raised in large litters are also subjected to increased conditions of crowding which in itself may influence subsequent behavior. Moreover, Seitz (1954, 1958, 1959) has shown that maternal behavior in large litters is at least 25 percent less manifest than that which occurs in small litters. This in itself can affect later behavior. If one pursues the suggestion (Birch, 1966) that litter size can be maintained constant and nutrition varied by the technique of partial mastectomy, the problem of crowding can be eliminated although the effects of differential maternal stimulation may remain. However, detailed observation of maternal behavior during the nursing period can potentially permit the selection of pairs of litters in which maternal behavior is equivalent in mastectomized and normal dams.

One must therefore recognize that although the animal evidence currently suggests that early malnutrition may influence later learning and behavior, it is by no means conclusive. Moreover, when learning has been deleteriously affected the mechanism through which this effect has been mediated is by no means clear. Resolution of the issue requires a systematic series of experiments in which behavioral effects are more clearly defined and in which the use of proper experimental designs accompanied by appropriate controls, permits the nature of the mechanisms affected to be better delineated.

INDIRECT EFFECTS OF MALNUTRITION ON DEVELOPMENT

Thus far we have concerned ourselves with the consequences of nutritional inadequacies when such insults have been directly experienced by the growing

individual. Clearly, this state of affairs represents only one of the ways in which antecedent nutrition may be experienced. The health and integrity of the individual in any generation depends not only upon what he himself experiences but also on the history of experience recorded in his progenitors. This is in no sense a Lamarkian concept, but rather a consideration of the continuities of physiologic events across generations. In the most obvious sense, women who have been subjected to conditions of nutritional inadequacy when they themselves were children may suffer more frequently stunting and anatomic disarrangements. In addition to these health factors, they may develop attitudes and habits toward food and feeding which also can affect their own offspring.

Bernard (1952) has clearly demonstrated the association between a woman's nutritional history and her pelvic type. He compared one group of stunted women with well-grown women in Aberdeen, Scotland, and found that 34 percent of the shorter women had abnormal pelvic shapes conducive to disordered pregnancy and delivery as compared with seven percent of the women in the well-grown group. Earlier, Greulich, Thoms and Twaddle (1939) had reported that the rounded or long oval pelvic which appears to be functionally superior for childbearing was more common in economically advantaged, well-grown women than in economically less privileged clinic patients. They further noted, as did Bernard, that these pelvic abnormalities were strongly associated with shortness.

Sir Dugald Baird and his colleagues in Aberdeen, Scotland, have conducted a continuing series of studies from 1947 onward on the total population of births in this city of 200,000 in an effort to define the patterns of biologic and social interactions which contribute to a woman's growth attainments and to her functional competence in childbearing. More than 20 years ago Baird (1947) noted that short stature, which was five times as common among lower class women than in upper class women, was associated with reproductive complications. He pointed out (1949) on the basis of analyzing the reproductive performances of more than 13,000 first deliveries, that fetal mortality rates were more than twice as high in women who were under five feet one inch in height than in women whose height was five feet four inches or more. Baird and Illsley (1953) demonstrated that premature births were almost twice as common in the shorter than in the taller group. Thomson (1959) extended these observations by analyzing the relation between maternal physique and reproductive complications for the more than 26,000 births which had occurred in Aberdeen over a ten year period and found that short stature in the mother was strongly associated with high rates of prematurity, delivery complications and perinatal deaths at each parity and age level. He concluded that "...it is evident that whatever the nature of the delivery the fetus of a short woman has less vitality and is less likely to be well-grown and to survive than that of a tall woman."

It was of course possible that these findings simply reflected differences in social class composition of short and tall women and were based upon differences in "genetic pool" rather than in stunting as such. To test this hypothesis the Aberdeen workers (Baird, 1964) re-examined their data for perinatal mortality and prematurity rates by height within each of the social classes for all Aberdeen births occurring in the ten year period from 1948 to 1957. They found that shortness in every social class was associated with an elevated rate of both prematurity and perinatal

deaths. Concerned that the findings in Aberdeen might not be representative, they also analyzed the data from the all-Britain perinatal mortality survey of 1958 and confirmed their findings. Moreover, Thomson and Billewicz (1963) in Hong Kong and Baird (1964) have substantiated the Aberdeen findings for Chinese and West African women, respectively. Other findings of a similar nature have been summarized by Illsley (1967).

In the United States, Donnelly, *et al.*, (1964) have studied North Carolina University Hospital births and also found a differential distribution of height by social class and association between prematurity and maternal size in every class. Their data suggested, in addition, that this influence was strongest in the non-white segments of the population. Yerushalmy (1967) has also confirmed the association in a large scale prospective study.

The available data therefore suggest that women who are not well-grown have characteristics which negatively affect them as childbearers. In particular, short stature is associated with pregnancy and delivery complications and with prematurity. Since growth achievement within ethnic groups is a function of health history and in particular nutrition, it is clear that the mother's antecedent nutritional history as a child can and does significantly influence the intrauterine growth, development and vitality of her child. Moreover, an inadequate nutritional background in the mother places this child at elevated risk for damage at delivery.

It is instructive to consider the consequences for mental development and learning failure that attach to the most frequently occurring consequence of poor maternal growth--prematurity. Concern with the consequences of this condition is hardly new; Shakespeare cited it as one element in the peculiarities of Richard III and Little (1862) linked it with the disorder we now call cerebral palsy. Benton (1940) reviewed the literature up to 1940, and found that although most students of the problem maintained that prematurity was a risk to later mental development, others could find no negative consequence related to it. At that time, no resolution of the disagreement could be made because most of the early studies had been carried out with serious deficiencies in design and in techniques of behavioral evaluation. Groups who were of low birth weight or early in gestational age were often compared with full term infants who differed from them in social circumstances as well as in perinatal status. Estimates of intellectual level were made with poor instruments and often dependent on "clinical impression" or testimony from parents or teachers.

Serious and detailed consideration of the consequences of low birth weight for later behavioral consequences can properly be attributed to the efforts initiated by Pasamanick, Knoblock and their colleagues shortly after World War II. These workers were guided by a concept which they referred to as a "continuum of reproductive casualty." They argued that there was a set of pregnancy and delivery complications which resulted in death by damaging the brain and hypothesized that in infants who survived exposure to these risks "there must remain a fraction so injured who do not die, but depending on the degree and location of trauma, go on to develop a series of disorders extending from cerebral palsy, epilepsy and mental deficiency, through all types of behavioral and learning disabilities, resulting from lesser degrees of damage sufficient to disorganize behavioral development and lower thresholds to stress" (Pasamanick and

Knobloch, 1960). In a series of retrospective studies these workers identified prematurity and low birth weight as being among the conditions most frequently associated with defective behavioral outcomes. Knobloch in association with Rider, Pasamanick, and Harper, (1956) undertook a prospective study of a balanced sample of 500 premature infants born in Baltimore in 1952 and compared them with full-term control infants born in the same hospitals who were matched with the prematures for race, maternal age, parity, season of birth and socioeconomic status. Four hundred pairs of cases and controls were still available for study when the children were between six and seven years of age, and examination of this sample indicated that the prematures and full term children continued to be matched for maternal and social attributes (Wiener, *et al.*, 1965). Findings at various ages persistently showed the prematures to be less intellectually competent than the controls. At ages three to five, the prematures were relatively retarded intellectually and physically and had a higher frequency of definable neurologic abnormalities (Harper, *et al.*, 1959; Knobloch, *et al.*, 1959). At ages six through seven, IQ scores on the Stanford-Binet test were obtained as were WISC IQ's at ages eight to nine. At both age levels, lower birth weights were associated with lower IQ's (Wiener, *et al.*, 1965; 1968).

Although certain British studies, such as those of McDonald (1964) and Douglas (1956; 1960) appear to be somewhat discrepant with these findings, reanalysis of their findings (Birch and Gussow, 1970) indicates a similar trend. More dramatic differences between prematures and full-term infants have been reported by Drillien (1964, 1965) but interpretation of her data is made difficult by complexities in the selection of the sample studied.

A number of analyses suggest that the effects of prematurity are not the same in different social classes and that children from the lowest social classes appear to have subsequent IQ and school performances more significantly depressed by low birth weight than is the case for infants in superior social circumstances. This has been reported for Aberdeen births (Gillsley, 1966; Richardson, 1968) and for Hawaiian children in the Kauai pregnancy study of Werner (1967). There appears to be an interaction between birth weight and family social condition in affecting intellectual outcome, but the precise mechanisms involved in this interaction are as yet unclear.

If the risk of deficient intellectual outcome in prematurity is greatest for those children who are also otherwise socially disadvantaged, our concern in the United States with the phenomenon of prematurity must be increased. In 1962, more than 19 percent of non-white babies born in New York City had a gestational age of less than 36 weeks as compared with 9.5 percent of white babies; in Baltimore this comparison was 25.3 percent in non-white infants as compared with 10.3 percent in whites (National Center for Health Statistics...1964). In 1967, nationally, 13.6 percent of non-white infants weighed less than 2,500 grams as compared with 7.1 percent of white infants. (National Center for Health Statistics...1967). Other relevant and more detailed analyses of the social distribution of low birth weight and gestational age on both national and regional bases together with an analysis of their secular trends provides additional support for these relationships (Birch and Gussow, 1970). Thus, prematurity is most frequent in the very groups in which its depressing affects on intelligence are greatest.

On the basis of the evidence so far set forth it may be argued with considerable justification, that one can reasonably construct a chain of consequences starting from the malnutrition of the mother when she was a child, to her stunting to her reduced efficiency as a reproducer, to interuterine and perinatal risk to the child, and to his subsequent reduction in functional adaptive capacity. Animal models have been constructed to test the hypotheses implied in this chain of associations, most particularly by Chow and his colleagues (Hsueh, *et al.*, 1967; Chow, *et al.*, 1968) as well as by Cowley and Griesel (1963; 1966). The findings from these studies indicate that second and later generation animals who derive from mothers who were nutritionally disadvantaged when young, are themselves less well grown and behaviorally less competent than animals of the same strain deriving from natural mothers. Moreover, the condition of the offspring is worsened if nutritional insult in its own life is superimposed on early maternal malnutrition.

A variety of factors would lead us to focus upon the last months of intrauterine life as one of the "critical" periods for the growth and development of the central nervous system in humans. Both brain and body growth, together with differentiation, are occurring at a particularly rapid rate at this time. It has been argued, therefore, that whereas marginal maternal nutritional resources may be sufficiently adequate to sustain life and growth during the earlier periods of pregnancy, the needs of the rapidly growing infant in the last trimester of intrauterine existence may outstrip maternal supplies. The work of Gruenwald, *et al.*, (1963) among others, suggests that maternal conditions during this period of the infant's development are probably the ones which contribute most influentially to low birth weight and prematurity. Such concerns have led to inquiries into the relation of the mother's nutritional status in pregnancy to the growth and development of her child. In considering this question, it is well to recognize that we do not yet have a definitive answer to the question of the degree to which maternal nutrition during pregnancy contributes to pregnancy outcome. Clearly, whether or not nutritional lacks experienced by the mother during pregnancy will affect fetal growth is dependent upon the size and physical resources of the mother herself. Well-grown women are most likely to have tissue reserves which can be diverted to meet the nutritional needs of the fetus, even when pregnancy is accompanied by significant degrees of contemporary under-nutrition. Conversely, under the same circumstance, poorly grown women with minimal tissue reserves could not be expected to be able to provide adequately for the growing infant.

Most studies of the problem have failed to make this physiologic distinction and have provided us with little information on the mother's characteristics against which to assess the importance of her nutrition during pregnancy for fetal growth. Almost all of the American studies are in fact difficult to interpret for these reasons (Burke, *et al.*, 1943a, 1943b, 1943c; Darby, *et al.*, 1953a, 1953b; Tompkins, 1941, 1948; Tompkins, *et al.*, 1955; Tompkins and Wiehl, 1951, 1955). These studies respectively carried out in Boston, Nashville, and Philadelphia, in which mothers have received dietary supplements during pregnancy, have provided conflicting and basically uninterpretable findings on the relationship between the mother's food intake during pregnancy and the growth of her child in utero.

Studies in other countries, however, provide somewhat clearer evidence.

Antonov's study (1947) of children born during the siege of Leningrad strongly suggests that significant degrees of maternal undernutrition during pregnancy affect both the survival and size of the infant at birth. Smith's report (1947) on birth weight in Dutch children born as the result of pregnancies carried out during the Nazi punitive blockade of a larger district in Holland indicate a reduction in the birthweight of infants carried during this period. In the opposite direction, Toverud (1950) set up a health station in Norway during World War II with the primary object of providing pregnant women with nutrients which were scarce under the conditions of severe food shortages and restrictions that characterized the occupation. Women attending the clinic had half the prematurity rate of unsupervised mothers as well as a still birth rate half that of women in the surrounding regions. Venkatachalan (1962) provided South Indian women with nutritional supplementation as well as with rest in the hospital for a period of four weeks before delivery. Prior to supplementation, these women had subsisted on diets of 1400 calories containing, on the average, 38 grams of protein per day. Under ordinary prevailing conditions, 29 percent of birthweights were under 2500 grams. In the nutritionally supplemented women, there was a significant general increase in mean birth weight and reduction in the prevalence of prematurity. These studies suggest the possibility that nutrition during pregnancy is a significant factor affecting intrauterine growth in women who are disadvantaged. The issue, though not entirely resolved, is important enough to suggest the desirability of planned nutritional supplementation for high risk mothers in advance of the full scientific resolution of the issue. In the best tradition of medicine such supplementation is justifiable in that it is unlikely to do harm, and may even do good.

Children who have been exposed to significant degrees of malnutrition early in life are unlikely to live in families and environments which provide excellent nutritional opportunities later in the course of their development. Numerous surveys (Arnell, et al., 1945; Ferguson and Keaton, 1950a, 1952b; Ferguson and Hinson, 1953; Delgado, et al., 1961; Cornely, et al., 1963; Mayer, 1965; Jerome, 1968) carried out in earlier periods, as well as recent testimony before the Senate Committee on Nutrition and Human Needs (1968-70) have all indicated that food habits and usages, in general, are poor in those social groupings which are most likely to have children at nutritional risk early in life. It is not surprising therefore that studies, such as that of Myers, et al., (1968) have indicated that, at school age, children in depressed urban districts exhibit both specific and general dietary deficiencies. When meals were rated over a four day period as being either satisfactory or unsatisfactory, these workers found that 55 percent of children in the 4th, 5th and 6th grades in the Roxbury section of Boston--two-thirds of whom were non-white--received unsatisfactory ratings for breakfast. Sixty percent had similar scores for lunch and 42 percent received less than four satisfactory evening meal ratings in the four days. In the period surveyed, more than half the children had had less than two glasses of milk a day and more than one-third had had no citrus fruit. More than a third of both the Negro and white children had insufficient intakes of protein foods.

The findings in Boston are not atypical and were repeated in school children (Dibble, et al., 1965; Hampton, et al., 1967; Christakis, et al., 1968; Huene-Manns, et al., 1968) in New York. Surveys in the south have provided similar findings. The combination of defective family food habits

and low income appears to exert a disastrous effect on child feeding. It is not surprising therefore that surveys of Head Start children have repeatedly suggested the presence of such signs of inadequate nutrition as iron deficiency anemia (Mermann, 1966; Filer, 1969; Gutelius, 1969).

Inadequate food intakes in children of school age complicate the task of evaluating the later effects of earlier malnutrition. When children are hungry or ill-fed, irritability, distractibility and inattentiveness as well as easy fatigability may all interfere with current levels of functioning. Such children are less likely to profit from the experiences to which they are exposed, and any residual defects from earlier nutritional results may be exaggerated and aggravated by current inadequacies in nutrition.

A further indirect way in which malnutrition may affect mental development is by the interaction between malnutrition and infectious diseases. The data on the relation of malnutrition to infection have been reviewed elsewhere (Birch and Cravioto, 1968) and need only be summarily restated here. Scrimshaw, Taylor and Gordon (1968) have spoken of a synergistic relation between malnutrition and infection. Malnutrition increases the susceptibility to infection, reduces or inhibits immunity reactions and other mechanisms of defense, and results in illness which is more frequent, more severe, and more generalized in its effects. Infection, in turn, modifies appetite and also increases the child's metabolic requirements and thus contributes to making poor diets even more inadequate. The easy generalization of the effect of infection in malnourished children places the central nervous system at increased risk and consequently may contribute to lower levels of intellectual competence in affected children. Moreover, the presence of illness, when protracted or frequent, may significantly interfere with opportunities for gaining experience both by restricting environmental contacts and by reducing responsiveness.

Taken as a whole, the indirect paths through which nutritional inadequacy may affect the child's growth and development are diverse and ubiquitous. No serious consideration of the relation of malnutrition to development can afford to underestimate their potential influence.

IMPLICATIONS

The data we have considered make it necessary to conclude that nutritional inadequacies are associated, in both direct and indirect ways with deficiencies in physical and mental development. The evidence indicating that the nutritional insults experienced by children both in utero and in post-natal life influence physical growth and functional competence at later ages is of critical importance. The degree to which direct negative consequences for normal nervous system growth and differentiation attach to malnutrition is dependent both upon the degree of severity of the malnutrition and upon the time of life at which it is experienced. The child who as a fetus or infant is exposed to significant degrees of malnutrition is placed at increased risk for abnormal physical and mental growth. The data we have reviewed also suggest that the long-term consequences of these early insults are greatest when, after their occurrence, the chronic circumstances in which the child grows and develops are ones in which both social and nutritional circumstances are substandard. Negative

consequences appear to be reduced when these later opportunities are better.

The data further suggest that a useful distinction can be made between conditions of hunger and debility at school age and antecedent or more chronic conditions of malnutrition experienced by the child over his life span. Both may affect functioning but probably do so through different mechanisms. Poor feeding when the child is at school age can result in increased irritability, unresponsiveness and easy fatigability and in this way contribute directly to dysfunction as well as exacerbate learning difficulties which may already have been produced as a consequence of antecedent undernutrition.

We have been at pains throughout this review to point to the limitations of our information and to the wide array of scientific questions which remain to be resolved. However, it would be disastrous if the recognition of the limitations in our scientific understanding were to be used as either a counsel for delay or for "do-nothingism." It is obvious that science is a continually developing fabric of information and theory and that both our knowledge and concepts are always limited by the reality of time. The function of science as a guide to social progress is, at any point in time, to define what the greatest likelihoods are both with respect to the needs of people and with respect to the procedures and policies which are likely to satisfy them. Though many questions still must be answered on the relation of malnutrition to mental development, our already available body of knowledge makes it abundantly clear that the association between this condition of environmental lack and physical as well as functional development is very strong. In view of this, we have little choice but to advocate improved nutrition as one essential for the growth and development of healthy and intelligent children.

It appears, if this point of view is to be taken seriously, that the adequate feeding of children must become an essential aspect of daily care. Such feeding should be aimed at but not limited to the identification of nutritional inadequacies and the provision of appropriate foodstuffs for children in care. If it is to have long-term impact, the intervention must also have as one of its major components a program of instruction in attitudes and ideas toward proper eating in order to establish a basis for the continued availability and responsiveness to food of the growing developing child. Clearly, the child is not an independent agent and a considerable portion of his life, even if he is in care for a certain period of each day, takes place in his home and in his family. It is obvious that gains both with respect to food intake and with attitudes and preferences toward food made while the child is in Day Care or some similar care arrangement may be undone if the home and the care center function at cross purposes with one another. Consequently, an essential part of any program of child care must be the establishment of the cooperation and positive participation of the parent in the achievement of the goals and objectives which the program sets for itself. This means that a program of parent education, and in this instance parent education with respect to nutrition and the physical needs for children, is an essential component for continuity in care. The enlistment of cooperation and the education of the parent can have affects which are beneficial not only to the child who is in the care, but to all children in the families, born and as yet unborn. Hopefully, such a program can acquaint the mother not only with the needs of the child after his birth but with his needs when he is still resident in the womb.

It is to be hoped that, particularly in the most seriously disadvantaged groups, the effects of such a program will be the diminution of interuterine insult and the production of healthier and better functioning infants.

It would be tragic if nutritional education were to take place under circumstances in which the family's resources make a mockery of the recommendations which the professionals advance. It is one thing to teach a mother that high protein foods, fresh fruits and vegetables both taste good and are good for her and her child. It is another for her to seek to purchase these on a restricted budget. Consequently, nutritional educational activities in any program, must be pursued in close collaboration with agencies concerned with broader aspects of the social and economic welfare of children and their families. Only such interdepartmental cooperation can embed an educational program in a foundation of reality. Any failure to do so makes it a burlesque.

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CHAPTER 13

SOCIAL WORK AND SUPPLEMENTARY SERVICES

Enolia B. Archinard, June Sale, Harry Wasserman, Laura L. McCall

Social Work and Day Care

The decade 1960-70 has seen a reversal of attitude in the profession of social work toward supplementary care for young children outside of their own homes. Through the years social work as a professional endeavor has been involved with public Day Care programs for young children, albeit on a somewhat ambivalent basis. Thus, Jane Addams pioneered in Day Care at Hull House before the turn of the century, providing families in the neighborhood of her famous settlement house both a creche for the care of infants and young children of working mothers and a Kindergarten for pre-schoolers. In line with the thinking of her day, however, Miss Addams viewed these programs as make-shift substitutes for a proper community-wide concern for the protection of children and a developed public program of pre-school education. She was delighted, in time, to transfer both the creche and the Kindergarten to what she considered their more appropriate sponsors. The creche became the creature of the United Charities of Chicago and the Kindergarten was absorbed by the Board of Education (Young, 1967).

None of the knowledge that poured into the profession over the next fifty years challenged the rightness of these dispositions. Nursery schools and Kindergartens, insofar as they were considered enriching childhood experiences, have been supported by the profession of social work as belonging in the domain of education. Day Care for the children of working mothers, in contrast, has been viewed by social workers as a custodial service necessitated by the minimal functioning of marginal families and properly accompanied with a program of family counseling. Until recently, part of the profession's philosophy of childhood development rested on the assumption that separation of the young child from his mother was potentially harmful. Placement of a child in all Day Care was indicative of some emergency in family life or a breakdown in some aspect of family functioning (Ruderman, 1968).

Two major developments have challenged the fitness of this social work assumption in recent years. The first is the changing functioning of women with regard to work. Whereas in 1920 the typical working woman was single, about 28 years old and of the working class, her 1970 counterpart was married, a member of any class, and worked to contribute to the well being of her family. In early 1970, over 18 million married women were working or looking for work; this group represented about 60 percent of the female labor force. Among families with pre-school aged children, 44 percent of Negro wives and 27 percent of white wives were working. It appears from the direction of these figures then, that norms are changing with regard to the roles of wife and mother in modern American society (Waldman, 1970).

The second development challenging the traditional social work view towards Day Care has been the influx of knowledge from basic research, both in the area of child development and in the exploration of maternal deprivation. Research in child development suggests that there are benefits to a child who is stimulated regularly outside of his home by a persons or persons other than his mother, particularly a child born into a disadvantaged home (Miller, 1967). Research in the area of maternal deprivation, so long dominated by the work of figures such as Bowlby (1952) and Spitz (1965) has been expanded by the work of Hunt (1961), Bettelheim (1969), and others. The latter researchers have pointed out that the personality damage noted in young institutionalized children may have been due as much to lack of perceptual stimulation in the alternative environment as to separation from the mother.

Factors other than the changing role of women and the influx of new knowledge also seem to challenge social work's commitment to the exclusive home care of young children. Social work is a participant in a contemporary scene in which Day Care has emerged to capture a sizeable portion of the public imagination as the potential redresser of a host of ancient wrongs. Persons interested in preparatory or supplementary education to disadvantaged children see Day Care as potentially regenerative of the school performance of thousands of youngsters who face a future of marginal performance in elementary school and early drop-out from the educational system ("Children Under Three...", 1969). Civil rights activists are committed to Day Care by virtue of Negro children being among the most numerous of the disadvantaged (Report of the National Advisory Commission on Civil Disorders, 1968). Developers of new careers for the poor are interested in Day Care as a potential source of placements for their trainees (Pearl and Riessman, 1965). Community activists view all community programs as natural focal points for maximum feasible participation of the people in the neighborhood in guiding their own destinies (Foston, 1959). Women's liberation workers see Day Care as a means of diminishing the social enslavement of women (Bird, 1968).

In addition to being a central platform in a host of programs of sweeping social reform, Day Care continues to be a service valued in the relief of specific social problems. Adequate Day Care is still viewed as a protection to children whose mothers work (Willner, 1965). Day Care has been useful as a vehicle for delivering services to so-called "dis-organized families," families believed influential in prolonging a culture of poverty generationally (Pavenstedt, 1967). There is also the belief that Day Care is crucial in services to those children who are emotionally disturbed (Augenbraum, et al., 1963), physically handicapped (Gay, 1965), and retarded (Adams and Colvin, 1969). Day Care is even a strident demand on the radical political right and is central to its program of constant pressure on welfare mothers to work (Wickenden, 1969).

In this upsurge of contemporary interest in Day Care programs, then, the soul searching of social work over its failure to be "instrumental" rather than "residual" (Kahn, 1959) in Day Care, as in other social areas, seems somewhat over-scrupulous. It may well be true that the profession has been influential in narrowing the field of child welfare into one of child placement, as some authorities believe (Meier, 1966). In similar

fashion, social work concern over the potentially pathological impact of parent-child separation may well have contributed to a public association of programs of part-time care of children with child neglect, with poverty, and with immorality (Ruderman, 1968). On the other hand, if this country's public programs of supplementary Day Care for children in this century have been "bound in shallows," such a condition is probably less a result of activity or inactivity on the part of the profession of social work than of the state of the "tide in the affairs of men."

Large System Planning

It needs to be remembered that social work has had more and longer experience with the human, organizational and institutional complexities of Day Care than any other profession. Social work brings to the contemporary scene a rich experience in program development. Out of that experience, social work has learned caution about too easy an assumption of social consensus. The idea of Day Care as a social utility may appear to have wide support. Transforming the idea into services and embedding the services within a social institution may be expected to disturb this surface unity. For example, if Day Care is regarded as an important developmental opportunity for every child, then programs for young children are logically seen as a universal extension of the concept of public education ("Heineman Commission Rejects Day Care," 1969). Educators, however, are still preoccupied with expanding their Kindergarten programs. They report a number of stumbling blocks to the extension of public educational programs to the even younger child. Among these may be noted the problem of the transportation of the child to and from the educational center; the shortages of resources in both space and personnel that already plague the educational system; the intensification of these shortages implicit in a desired low child-teacher ratio for young children; the insufficiency of any short-day educational effort to the protection needs of the children of working mothers; the health problems introduced by groupings of young children; and many similar considerations (Mayer, 1965).

Small System Planning

Recognizing the inflexibilities of large institutional systems, social workers have joined other professions in advocating a neighborhood delivery system for Day Care, as for other services (Mayer, 1967). This system for developing Day Care has had much success, notably with Head Start. However, some dysfunctional aspects of this delivery system need to be considered. One problem is that program centered service tends to reach a predisposed minority of clients. Thus, Gans (1964) believes the settlement house served primarily the temporary, upwardly mobile resident of the slum neighborhood, rather than the permanent one, so that the most help was given to the persons who needed it least. Another problem in a neighborhood delivery system is that neighborhood organization necessarily precedes service delivery. For instance, Keliher (1969) reports that most of the initial money and effort allocated for the development of Parent and Child Centers under the Office of Economic Opportunity (OEO) was expended in developing adult relationships, rather than in concern for children. Still another problem in neighborhood delivery systems concerns the upwardly

mobile drive of the indigenous population. Many such workers find it more rewarding to conform to middle class expectations than to continue to represent the interests of their neighbors (Kuezman, 1970). There is a drive to import into a slum neighborhood an intact middle class nursery school -- a 9:00 to 12:00 enrichment program, complete with milk and cookies -- irrespective of the particular needs of the families in the area. Finally, at least one authority has challenged the major claimed benefit of "maximum feasible participation" by pointing out that consumer expectations raised in such activity can rarely be matched by program benefits (Moynihan, 1969).

Licensing

In addition to large and small program sophistication, social workers bring to the contemporary Day Care movement a long experience with the licensing of proprietary Day Care since this function has been largely allocated to State Welfare Departments. Some social workers believe that social work has failed to exploit the preventive features of licensing in assuring adequate care to children (Class, 1967). Others in the profession believe that licensing is an act of authorization and not a service and that the licensee is entitled to inspect his public record and to appeal verdicts according to established criteria. In any event, it is the common experience of social workers in this area that licensing involves much consultation directed to marginal situations, both because authority to act vigorously in closing facilities is clouded and because the need for facilities is so great that action to close sub-standard operations is inhibited ("Discussion," 1967).

Norris Class (1968) states five postulates of child care licensing: (1) it should be viewed as a form of regulatory administration; (2) it is concerned with facilities under private auspices; (3) it is one means of securing conformity to standards and the upgrading of service; (4) it requires recognition of the operational differences between child care licensing and child placing; and (5) it is a preventative welfare program.

The publicly operated Day Care center that may provide social services usually is not required to be licensed since it is under public auspices. The social services input into proprietary and private programming in centers and for family Day Care comes through licensing. It is clear that standards for personnel, environment and program may be formulated and upheld through licensing. There is also a need to examine the kinds of cultural and ethnic programs that licensing may eliminate or exclude. In a description of the Day Care Neighbors in a Portland family Day Care project, the desirable qualities described for personnel often were not those that would fit low income, minority populations (Collins and Watson, 1969). The positive effects of licensing have been examined and supported; however, we feel that a closer look should be taken at the kinds of people excluded. In order to provide quality care for children and their families there is a need for research into the area of existing private Day Care of children that extends their cultural and ethnic backgrounds. This could be accomplished through ongoing supervision that provides training and support to potentially good Day Care mothers from a variety of backgrounds and cultures.

Resource Development

In response to need, social work has pioneered in developing resources. Social workers have attempted to explore, enter and influence the highly informal and transient baby-sitting systems that presently seem to serve most working mothers (Collins and Watson, 1969; Willner, 1969). Social workers have been deeply involved in developing family Day Care among welfare and other low income families, providing training to applicant Day Care families and licensing, while at the same time freeing mothers of small children to work or obtain training of their own (Sheridan, 1967; Wade, 1970; "The Family Day Care Career Program," 1970).

Research

Social workers also bring to the contemporary Day Care field some research sophistication with regard to discovering need for programs, program design and evaluation of program effectiveness. One of the complications in determining the need for Day Care in this country is the difficulty in deciding how to count instances of this need. There have been many surveys of working mothers (Lajewski, 1959; Ruderman, 1968; Low and Spindler, 1968), but the findings are geared to the original definitions. What is a working mother? Is a mother considered to be working only if she leaves the home and collects a salary? How many months of the year, or days of the week must the mother be out of the home collecting a salary in order to qualify for count? The same defining questions have to be considered in survey counts of children (Chilman, 1966). Some differences in findings are accounted for by these differences in definition.

In addition to the complexities of determining needs for Day Care programs, there are a host of other considerations in establishing a Day Care program's purpose. In the present era, there is strong support for a definition of Day Care in terms of child development rather than child protection, as has been true in the past (Lansburgh, prepub. M.S.). Program designers then have to define what they mean by child development -- not an easy question. Social work, like other disciplines, has broken down the over-all consideration into component parts, defining a child's development in terms of his physical, emotional, intellectual, social and spiritual development. Measures for evaluating each child in each of these areas then have to be devised.

It needs to be remembered that research measures are seldom completely satisfactory indicators of the human characteristic being measured, as the continuing debate over the use of the I.Q. as a measure of basic intelligence well illustrates. In addition, the evaluation of the measure either by norm or by ideal is seldom satisfactory. Individuals in certain groups have been evaluated as retarded in comparison to norms, when, in fact, these individuals have been abnormally deprived or even abused (Hurley, 1968). A comparison of a measure against an ideal can sometimes be equally misleading. Ideals are related to values which shift and change in society. Then too, no achievement can be considered apart from its attainment cost. There are some authorities who are concerned about the contemporary emphasis on helping the child develop intellectually (Senn, 1969).

Development in one area at cost to all of the others is a doubtful accomplishment.

In addition to establishing the need for Day Care, defining its goals for children and establishing some measures for determining the extent to which the goals are being realized, program designs have to be developed. Much of the best research in contemporary Day Care is being done in the area of program design and includes careful comparison of the achievement of the children participating in these programs to that of matched groups of children not enjoying the benefits of participation (Provence, 1969; Robinson, 1969; Caldwell and Smith, 1970).

Evaluating the achievement of the long time objectives of a program presents a research challenge that present skills cannot meet. Social workers know that whenever social work programs have been examined against some global objective, effectiveness could not be established. Reducing welfare roles may be a worthy ambition, for example, but it is not within the power of casework alone to accomplish such a goal. It is not surprising, therefore, that a recent study shows little connection between the instigation of casework counseling and the reduction of welfare dependency (Wallace, 1967). Similarly, in another careful study, the reduction of juvenile delinquency could not be related to the provision of casework counseling and for the same reason (Meyer, *et al.*, 1965). Out of these experiences and others like them, social workers know that the best Day Care centers are unlikely to have dramatic and demonstrable effects on rates of school drop-out, racial discrimination, the job needs of the poor, the anomie of the urban neighborhoods, the second class status of American women, or any of the other social changes desired by many of the vigorous proponents of Day Care in the social welfare field today. Social workers may make a major contribution to the sound development of Day Care by helping to keep expectations for program outcomes within rational limits.

Range of Social Work Functions and Roles

Effective social work in a Day Care center can perform a wide range of critical roles necessary to the operations of a first-rate center. Ideally, the social worker should be a generalist, capable of performing some of the traditional functions, such as casework and liaison to other community institutions, but also capable of responding to the need for doing what might be considered "new work," such as client advocacy and involvement in parent participation groups. The perspective of the generalist social work role stems from the ambiguity and uncertainty of group Day Care for children as an institution. The societal commitment to Day Care under public and voluntary auspices is, at this time, uncertain. Its place in history as a normal children's educational and care facility lacks a continuity underwritten by public policy and support. More specifically, in terms of social work *per se*, there is much confusion about the boundaries between professional and non-professional social work. Which tasks should be exclusively carried out by professionals? Which by non-professionals? There is, of course, a greater sense of security for the experienced social work professional, or for the professional of any discipline, to work within the boundaries of clearly defined tasks and roles.

At this time, however, the assumption of a wide range of tasks and role diffusion, rather than the precise definition of roles, is a more realistic professional posture. Contemporary social work education has accepted the challenge of preparing a significant number of young professionals who can not only live with a wide range of functions and roles, and role diffusion, but also embrace this novel situation as an intellectual and emotional challenge.

There are, therefore, several possible roles a social worker can fill in a Day Care centers, and although it is unlikely that any given social worker can carry out all of them, he can usually opt for a combination of three or four.

Advocacy

Although there is a beginning literature on advocacy in social work, a theoretical base and a digested experience have not yet been developed. Advocacy is fundamentally a form of political action, a formulation that may seem abrasive to fellow professionals. It seems manifest, however, that the best child care centers are only minimally effective in environments of high unemployment, dilapidated housing and a host of associated conditions. Since poor people often do not understand the policies, regulations and rules of the institutions they confront in attempting to alleviate these blighting conditions, advocacy on their behalf is a needed service. It is a means by which the agency, through the social worker, represents both the individual client in securing entitlements based on law and the claims of a group of clients facing a set of common problems.

The social worker recognizes that advocacy is stronger when embedded in an institution than when allocated to an individual alone. In the Day Care center, the social worker supports the allocation of a regular number of staff hours to a consideration of the needs of the community in which the center is located. If the center caters to poor families and their children, the more pressing needs of the families require that the center ally itself with other organizations operating in behalf of these families.

Community Organization

Techniques in helping families improve and change their communities have been well developed by social work. These skills may be made available to the families of the children in the Day Care center. Warren (1968a, 1968b) has described both the conventional and unconventional roles assumed by the social worker in helping groups deal with different situations. He identifies the "enabler," the "persuader," and the "contestant."

The enabler utilizes a collaborative strategy. He builds a program of consensus in which a general agreement on goals is formulated. For example, a social worker in a Day Care center may help organize a buyer's club among the parents and the staff. The common interest in buying

certain products at a low price not only benefits the parents and staff materially, but also unifies them around a crucial issue effecting living patterns. Social workers have found that there is seldom opposition to such activity, but that it is vulnerable to apathy on the part of the membership of such organization.

The persuader uses a campaign strategy. He builds a program on differences so that there is an expressed disagreement on the goals toward which an organization is working. For example, a group may be organized to request free lunches for their school aged children from the local school board. It may be anticipated that there will be a number of persons in the setting who do not wish to join such a group for any number of reasons. The formation of such a group may be instrumental in obtaining free lunches or in an organizational decision not to provide them. The formulation of a campaign, however, is useful in helping a group come to terms with the differences among its members.

The contestant, or antagonist, utilizes a conflict strategy. He builds his program on a lack of consensus and the sharp differences on goals toward which the group should work. For example, he may help the families of the children at the Day Care center organize a tenant's society so that individuals may act concertedly to withhold rents pending housing improvements. This strategy crystallizes conflict (not violence), provokes opposition and makes it visible, and risks possible backlash. The demand for investment is high in such activity, but high, too, is potential impact on the community.

Parent Involvement

"Parent involvement" is a built-in criterion of most publicly funded Day Care projects today. Using Hess's (1969) models of deprivation, parent involvement strategies have evolved that speak to "cultural disparity, deficit and social structural" models -- all of which recognize the role of the parent as one effecting the cognitive development and later school achievement of the child. The emphasis in Day Care, then, has changed from providing only a service to meet parental needs (baby-sitting) to providing a service to children by making demands of and providing service for parents. The social structural model, in which the family mediates the environment, is one that opens the door to social work goals compatible with professional assumptions. It provides a unified and consistent approach for the family and may follow many paths.

Direct involvement of the parents in the programs has been accomplished in four major ways. (1) Using the new careers philosophy, parents have been provided education through direct employment in the center in concrete tasks that have served child, parent and community. The "helper therapy" outlined by Reiff and Reissman (1965) is a principle that was and is successfully used in the Parent Child Centers (Lazar and Lazar, 1970) in mediating and changing the family environment. (2) Parents have been involved in decision making boards and committees; this has not only helped parents understand the need for altering spontaneous child rearing patterns, but also has alerted centers to modifications essential to adapting programs

to neighborhood needs. (3) In addition, parents have been used as volunteers in the tradition of middle class organizations that so involve their members in commitment to programs. For such programs to be successful jobs need to be clearly defined, responsibilities outlined and appropriate goals provided. (4) Finally, parents have been involved in auxiliary programs associated with public Day Care centers.

Each of the above techniques for involving parents requires a costly but beneficial system of individual and group support and training that will include some of the components enumerated below: (1) parent education, family life education and/or adult education (Brim, 1959); (2) casework and group support for parents who, for a variety of reasons, may find it difficult to become involved (Larrabee, 1969); (3) home-visits to provide the kind of support that may lead to the future involvement of parents who cannot participate in the ways outlined above, or in any traditional way; and (4) family management programs such as sewing, cooking, consumer education and home improvement projects which involve parents in concrete, rewarding tasks which increase their competence as family managers.

There has been a great deal of concern and focus on involving the male figure in families using Day Care. Becker's (1964) report on research dealing with parental discipline points out that the father's influence on children's behavior is at least equal to that of the mother. Such findings reinforce the growing trend to involve males in child care programs. However, actual efforts to include the male have not met with great success (this holds true for middle class endeavors dealing with the young child). Including more males in all types of personnel hired in a Day Care center would serve perhaps many purposes. For example, it would provide male figures for children, employment for men, raise the status of child care workers (men are traditionally paid more than women) and involve men in the day-to-day operation of child care centers.

Non-Professional

Much has been written over the last decade documenting the contributions and problems of the non-professional indigenous aide in a number of human service programs (Pearl and Riessman, 1965; Specht, *et al.*, 1968). The evidence indicates that indigenous workers have relieved professionals of many tasks without loss of service quality. In addition, they sometimes have been more effective in linking services to a target population than professionals. The indigenous aide is likely to be completely familiar with the language, the problems, and the lifestyles of the people of his neighborhood.

The new careers concept has succeeded whenever the non-professional has been supported with continuous on-going training programs that include on-the-job supervision, a relevant educational supplement and a genuine vertical career opportunity. In the human services the greater difficulty in developing new careers has been that of formulating job sequences. Entry positions, for example, are easily built into Day Care programs; however, the ladders upward to more professional uses of child care expertise have not been easy to provide. Institutions of higher education, notably

community colleges as well as schools of social work, have been grappling with the problem and have provided occasional supplementary courses in training child care workers. Seldom, however, have they been able to assist the high-school drop-out into the undergraduate and graduate educational systems that control the certifications requisite to professional standing.

The use of non-professionals in Day Care centers is particularly beneficial to low income children and their parents. Such positions obviously increase employment opportunities for non-professionals. In addition, the skills acquired in caring for the children at the center carry over into the home-life of the neighborhood workers and serve as models for an extended number of families. Given these advantages, it seems important for Day Care centers to continue to work with educational institutions to find ways to credit the sometimes rich life experience of non-professional child care workers so that they might have access to professional careers.

Administration

When a setting such as Day Care involves an array of services, rather than a single service, built-in bureaucratic difficulties may be anticipated. A generalist approach is sometimes more helpful in dealing with the problems of personality, cooperation, and performance in an interdisciplinary setting than the approach of a specialist, because adherence to the values of a single discipline can distort the interdisciplinary effort. Social workers, comfortable in working with professionals, non-professionals, parents and children, and in using conflict as a means of growth, are often quite successful in this position. Being a qualified social worker in no way guarantees administrative competence. However, schools of social work are building into curricula courses designed to increase such competence.

The administrator of the Day Care center has the responsibility of establishing goals in conjunction with the governing board and operating personnel. Large objectives have to be spelled out in concrete procedures. Criteria for entrance, determination of fees, selection of the number and ages of the children to be served and the development of program and services need to be made explicit.

Personnel policies and practices must be developed and implemented in order to insure a smooth running program. "Staff members should know what their responsibilities are, what benefits and privileges are available to them, and what they will be paid (and why and how). They should understand their relationship to other staff members and know to whom they are responsible. They should be able to bring their needs and suggestions to the attention of someone who can do something about them. And, most important, the staff must understand the purpose of the program and how each member fits into it" (Boguslawski, 1966).

The child care center is only as good as the personnel operating it. The administrator is a key person in the well-being of a family and child project; he hires, fires and is responsible for the output of the personnel

conducting the program. He is the interpreter to the governing board and to the community of the goals and purposes of the program. He makes judgments dealing with young children as well as their families. While this person need not be a social worker, he will need to deal with a variety of problems and issues for which social workers have been trained, from casework to community organization.

Casework

It has long been recognized that the progress of children in school is associated with conditions within their homes. The closeness of the association of home conditions and school performance, moreover, intensifies with the youth and vulnerability of the child. As Day Care centers seek to enrich the development of younger and younger groups of children, they need to be increasingly concerned about the family situations of the children served.

Social workers have been invaluable as members of the intake teams reviewing the applications of incoming children, particularly in the area of discerning the home conditions. This is not to suggest that parents need to feel that entering their children in Day Care involves undergoing a series of stressful interviews in which their privacy is violated. It simply means that parents need to understand early that Day Care is a cooperative endeavor between parent and staff and that the child's needs are best served when all of his circumstances are known.

In the application interview, the social worker focuses on helping the parent get ready to use the center constructively. He may focus on the special segments, although not necessarily in the following sequence: (1) an explanation of the workings of the center--policies, rules and regulations, and what is expected of the parents; (2) the parent(s)' views and expectations of a group Day Care facility; (3) a preliminary diagnostic evaluation of the family's strengths and liabilities, with particular focus on any current crisis or stress situation; (4) the parent(s)' knowledge of the child's development, behavior, and special needs; (5) the possibilities of an alternative placement, such as family Day Care, if it appears that the child might derive greater benefit from such an arrangement; and (6) an open offer to the parent(s) to use any of the center's services if any critical situation within the family emerges. While this is certainly not an exhaustive listing of social work intake areas of concern, it provides the guidelines of a beginning contact with the parent(s).

If for some reason, the child's admission to the center is contraindicated, the center, through the social worker, has the obligation to suggest and to help the family effect an alternate feasible plan for the child.

Over the course of the child's enrollment in the program, the social worker stays in continuous contact with the child's family in order to maintain an on-going understanding of his home situation. Social workers have found that characteristic problems of children attending Day Care centers can be identified. A child's behavior may begin to

change and the change may arouse anxiety or confusion in the mother's mind. Some children begin to manifest excessive independence; others become increasingly dependent upon the mother. Some children experience home-sickness at the center over a long period of time; others are resistant to leaving the center when the parent comes to pick them up. Some children behave quite differently at the center than they do at home. These are just a few examples of the kinds of crises which arise and which usually yield to a sharply focused intervention by the social worker in his work with the parent.

In maintaining continuing contact with families, social workers also have identified some of the characteristic problems faced by the mothers that effect the behaviors and functioning of children. While individual temperament may determine whether a working mother finds it exhilarating or over-demanding to function simultaneously as wife, mother and full-time employee, all working mothers have busy schedules which make concentration on the needs of a particular child difficult. Some mothers feel unsure and anxious about leaving the care of their children to strangers and endure much anxiety and guilt. Single parents have special problems in trying to fulfill the parental role of the missing partner. Overwhelmed mothers find that utilizing Day Care centers for their children imposes high demands upon them. To see that young children arrive at the center dressed, rested and fed can be a heavy burden to mothers who help older children off to school, husbands to work and often must leave for work themselves, all in the same period of time.

In addition, families as a whole have problems. Parents die or separate, new children are born into the household, illness occurs, incomes fluctuate and a host of other family situations arise which affect a child's concerns and his level of functioning. Poor families, in addition, contend with an unending series of crises in their home life. They must cope with continual and specific dangers in their neighborhoods; endure recurring episodes of shortages in food and money; face threats of eviction, neighborhood fighting, police harassment and a score of other adverse conditions.

While it is necessary to know about the home conditions effecting the children enrolled in the program, it is questionable whether a Day Care worker can work intensively in many home situations over lengthy time periods. Short time crisis intervention, in contrast, is an effective social work treatment that can be consistently available to all families of the children at the center. In this form of casework, the vehicle of treatment is the client's current life situation, the dynamic is his acute discomfort, and the techniques involve immediate concrete relief and cognitive as well as emotional support. The longtime impact of such treatment is necessarily dependent upon the immediacy of the emergency, its importance to the family, and the promptness with which the service is rendered. Services range from helping a working mother relay, without loss of a half-day's pay, a forgotten teddy-bear to a particular child so that he can nap comfortably, to counseling a mother about the jealousy of a toddler toward his baby brother, to persuading a landlord to hold off an eviction pending the delayed arrival of a promised welfare check.

If crisis intervention is the principle mode of family assistance in the Day Care center, certain structural and process arrangements must be consistent with the service. (1) Social workers have to be available to work with parents on some nights of the week and on Saturdays because many parents are working. (2) Interviews must be conducted where needed and useful, rather than limited to offices at the center. (3) The social worker's home telephone number should be available to every parent since family crises occur after 5:00 P.M. and on the weekends. Although this may seem demanding and burdensome, it does demonstrate in practice the center's philosophy of accessibility and availability through the person of the social worker. (4) Poor people's crises often revolve around an unmet concrete need: a threat from the environment, the lack of money and food, the threat of eviction, a fight in the neighborhood, police harassment, and so on. What the social worker can do about each and every critical situation is in itself problematic. What is important is that he demonstrate that, in some situations, he can intervene effectively so that the concrete need is at least temporarily or partially met, that the threat is in some way mitigated. If poor people are concrete in their thinking, it is not only due to deficiencies in formal education, but to the hard realities of their lives. When physiological and safety needs are unmet or threatened, realistic thinking is focused on concrete matters.

Liaison Work and Referrals

Liaison work and referrals are an integral part of the social case-work process. The social worker on the Day Care staff should be the expert on community resources. His education sensitizes him to the importance of knowing who to send where under what conditions. Realistically, the social workers and other members of the Day Care staff cannot attend with continuity to every family problem which arises. There are a host of medical, legal, social, educational, and psychological problems which need specialized attention and deliberation. Knowledge of various resources, policies and programs is central to the social work function. Referral in itself is not enough. Liaison work--with parental permission--undergirds the preparatory work that is needed to deal with both parental and agency expectations. Prepared referral to the proper outside resource lessens the possibility of the parent experiencing failure or of not following through with the referral. Once the referral has been made, then the obligation for follow-through is of great importance.

Formal knowledge of community resources, policies and programs is buttressed by the social worker's "informal" knowledge of the central persons to contact in making a referral. In every large agency, particularly, there are people who can expedite matters, people who specialize in certain kinds of work, people who "know other people." These bits of informal knowledge can assist parents through the obstacles of bureaucratic impersonality and red-tape.

The liaison function of connecting people to resources is central to the Day Care center's operations. Realistically, the Day Care center has only a limited range of interventions stemming from its own operations. Attempting to intervene in every problematic area of families' difficulties

can only lead to diffusion of effort and unwanted confusion. Liaisoning activity over a period of time usually leads to the discovery that, in both the quantitative and the qualitative sense, there are considerable deficiencies in the resources available to families with a range of economic, social, legal, and psychological problems. This discovery necessarily sets the stage for another possible social work function, namely, that of advocacy.

Conclusions

Out of a long history of involvement in Day Care as a profession, and out of the experiences of individual social workers in particular Day Care programs, the social work literature would seem to have formulated some positions on Day Care for consideration with other professions.

1. A public Day Care center for children is not an exceptional service for children with special developmental needs; rather, it is a service to normal children and families whose benefits accrue to all family members involved in its operations.
2. Public group Day Care is best viewed as a normal child development institution, catering to all families regardless of income, ethnicity and racial class.
3. A public Day Care center should employ no means test in admitting children. Neither the working patterns of the parents, nor the economic conditions of the family should guide admission.
4. For the present, public Day Care should be neighborhood developed--not centralized in major institutions. Centralization and universality should await the study of program development and program impact within small systems.
5. Supplementary services should support the normal needs of children and families using group Day Care. Parent participation groups, agency advocacy on behalf of families with common problems, referral services and crisis intervention are seen as normal adjuncts to coordinated work with parents in the care of small children. Prolonged direct interventions in the pathologies of particular families, in contrast, are inappropriate to the purposes of the centers.
6. Day Care centers should develop and train personnel skilled in child care and provide career sequences of jobs in their utilization. Entry positions should require minimal certifications, but each should open the road to the acquisition of a series of certifications in child care expertise.

7. Day Care centers should be developed in conjunction with simultaneous, large scale programs in employment, vocational training, adult education, housing and community and urban planning. Neither public Day Care, nor any other single service can carry the health and welfare burdens of a whole society alone.

A children's Day Care center can be a work environment which promotes self-respect and mutual respect among people, one which transcends the divisiveness of race, class, and educational credential. We believe that one of the necessary conditions of staff relating to children in an atmosphere of love, care, and sustenance is that the members of the staff care for each other, and view each other as sources of knowledge and emotional support. For it is in the nature of things (la force des choses) that individual members of the staff will be faced with difficult human problems in their work with children, family, and others in the outer environment. Frustration, anger, depression, and anxiety can often be dissipated in an ambiance of mutual concern and care. The children and families need not be the target of the human troubles and conflicts arising from the work environment.

In this world of hostility and hate, the Day Care center can afford all those connected with it a context of shared attitudes and experiences which promote festivity, celebration, and joy. Minor and major gains--the overcoming of a child's illness, the opening of a new housing site in the neighborhood, the anniversary of the center's opening--can be celebrated by the community as joyful events, marking victories for health, solidarity, and sanity. As a relatively new "mass" institution in our society, the Day Care center can be a source of renewal, signifying our people's investment in the generations of the future. Without this sense of investment in our children, the wellsprings of our society will dry up, and, finally, wither away.

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PART V

STAFF TRAINING AND DELIVERY SYSTEMS

CHAPTER 14

STAFF SELECTION AND TRAINING

Guinevere S. Chambers

INTRODUCTION

....We must reorder our priorities so that the developmental needs of children rank first in importance...For in our children lie our future and our hope for the fulfillment of our national goals.

These statements, and others similar to them, appear in the final report of the Joint Commission on Mental Health of Children (1970). They reflect the considered opinion of many professionals that our children should be regarded as our most precious national resource. The report further implies that the public has been as apathetic about providing support for our children as it has been about protecting our other natural resources.

Most people would probably agree that this Commission's analogy is apt. Yet, many would say that we often expend less effort in protecting our children than in solving problems related to our other natural resources. For example, if the problem is how to counteract water pollution, it is unlikely that we would attempt to solve it by calling in well-intentioned, untrained volunteers or that we would hire someone to learn to handle this problem "on the job." Instead, we would employ a person who is both accredited by training and experience to test, diagnose, and recommend solutions to the problem. However, when our problem revolves around child care many still assume that, because each of us was once a child, anyone can give adequate care to children.

Fortunately, there are some recent movements toward improving child care arrangements. Along with the mandate at the national level that Day Care shall be made available to all children who fall within the poverty level, the rapidly expanding pressure from various women's civil rights movements makes it clear that "purchased parenting" will be on the increase at all socioeconomic levels. Children away from their own parent models must be served by persons both educated and temperamentally suited for the work.

Current projections by the U.S. Department of Labor indicate that by 1980 at least 5.3 million mothers with children under five will have joined the labor force. Allowing one child per mother yields a base figure of 5.3 million children who must receive care while the mother works. A sampling of state regulations on child care centers indicates that, on the average, for groupings of children between the ages of one month and six years, there should be one adult for every four children. Calculating from this ratio, a minimum of 1.32 million child care workers would be necessary to meet the Day Care demands for this age group in 1980. However, preliminary

data from the U.S. Department of Labor Report show that there were approximately 160,000 Day Care personnel as of March, 1969, and that several million children were left uncared for. Simple arithmetic leads to the conclusion that over the next ten years, nine times the current number of Day Care personnel would need to be recruited to meet the needs of pre-school children alone.

If it were possible to obtain national concurrence that children need and deserve highly qualified persons to care for them if they are placed in Day Care, we could never meet the demand if all personnel were required to be fully accredited early childhood educators, social workers and so on. This demand would make the cost of Day Care prohibitive. Further, if viewed relative to the broader mental health picture, it is naive, as Albee (1969) points out, to think that "if we were able to double our professional number we could reach twice as many people...increasing the output of professionals will have little effect on the distribution of care. Half of the psychiatrists in this country are in five favored states...Most medical and paramedical professions prefer private practice to working with poor children in public tax supported facilities." In addition to these problems, Sobey (1970) notes that the rate of the national population increase has far exceeded the rather considerable rate increase in the number of professional educators, psychologists and child welfare specialists.

The obvious resolution between an "all or nothing" approach to educational qualifications is to reserve those with high experiential and professional accreditation backgrounds for key consultant and supervisory roles while experimenting with new patterns for educating nonprofessional personnel. The latter should be judged on the "competencies" which they may develop rather than academic credits which can be accumulated like stamps pasted in a trading stamp book but with little relevance to the functions to be performed in Day Care.

Specht and Grant (1969) describe the historical role of the professional in human services as being one "limited primarily to tactics--that is, providing expertise in specific operations, such as testing, diagnosing, treating, teaching and researching." They advance a convincing argument for the professional working in any of the foregoing categories to move from tactics to strategies that "...will complement efforts to bring institutions into step with the times through the use of vast nonprofessional resources." By switching to such strategies the professional will be able to deal more effectively with problems related to the pressures for change. He can then provide the "competent leadership" which Akers (1970) placed second in a six point priority list given in testimony before the House Educational Labor Committee's hearings on the "Comprehensive Preschool Education and Day Care Act of 1969." In his testimony, Akers pointed out that "the validity of involving nonprofessional personnel in all programs has now been firmly established...but...if the nonprofessional is to have the opportunity to develop his own innate resources and become increasingly skilled in working with young children - the fundamental hope of the 'career ladder' concept...there must be qualified and competent persons in leadership positions who can facilitate his personal and professional development."

From these introductory comments, it is apparent that some of the major problems in Day Care revolve around the education and recruitment of competent child care workers and the resolution of the dilemma of how we

may best utilize our scarce professional manpower supply.

Thus, the focus herein will be mainly on selected programs that represent a variety of innovative approaches to using the current competent leadership to effectively guarantee the so-called paraprofessional¹ an ongoing continuum of improved education from pre-service training through to graduate study.

RELEVANCE OF LAWS TO THE SELECTION AND TRAINING OF PERSONNEL FOR DAY CARE*

Licensing Laws and Regulations

The setting of standards for Day Care facilities is largely a state and local prerogative. All states have a set of regulations which a facility must meet in order to be licensed; almost all states require that certain types of facilities be licensed. Counties and municipalities usually have their own codes which must be met in addition to the state standards. Yet, state, county and municipal codes often do not call for the same standards nor is there necessarily a logical progression from lower standards at the state level to ever higher standards at more local levels. For example, under the state licensing regulations of Ohio, the executive director of a Day Care center serving more than 30 children must have four years of college or its equivalent or two years of college or its equivalent if a center serves less than 30 children. The city of Columbus, Ohio, however, simply requires that the director be capable of adequately "caring for and handling children." The reverse may be true in other areas, where the local jurisdiction requires higher standards than the state.

The standards which a facility must meet also vary depending on the definition of the facility itself. Most states have separate sets of standards for group Day Care centers, Family Day Care homes, children's institutions, and specialized facilities (such as those for the mentally retarded and handicapped). In addition, there are usually separate standards for schools, which may include nursery schools and other part-day preschool facilities. (At the same time, there are many types of facilities which are not subject to any standards.) The academic qualifications required to work in one type of facility may not qualify an individual to work in the others. For example, a state may require that all personnel working in a "school" be certified teachers with at least a bachelor's degree whereas it may require no more than a high school diploma for a worker in a Day Care facility.

The standards a program must meet may also be determined by its source of funding. For instance, any program funded in part by federal funds under

1 The author throughout uses "pre-professional" synonymously with paraprofessional, nonprofessional, subprofessional and new professional. It is simply a bias which encompasses a wish that all who begin will become professionals - not necessarily through academic channels but by learning and growing in the work.

* This section on laws and regulations was written by Erika E. Streuer, Special Assistant for Public Affairs, Day Care and Child Development Council of America, Inc. Appreciation for Miss Streuer's prompt and efficient cooperation is gratefully acknowledged.

the Social Security Act, the Economic Opportunity Act or the Manpower Development and Training Act, must meet the Federal Interagency Day Care Requirements (1969) as well as state and local licensing regulations.

Thus, when one is hiring or training personnel to work in a Day Care program, it becomes essential to ascertain how the facility will be defined, which jurisdictions have regulatory codes pertaining to what type of facility and what the regulations are for the source(s) of funds.

For standards defined as strictly as those for Day Care facilities, it is safe to assume that the regulations for group Day Care will be higher than those for Family Day Care homes which, in turn, are higher than those for "in-home" care, if the state has even set any standards for this latter service.

Licensing regulations are meant to be minimal standards which facilities must meet in order to operate. Many jurisdictions have required and recommended standards and, although only the requirements have a legal base, licensing authorities may try to impose the recommended standards upon facilities in their area.

Licensing regulations are primarily concerned with the physical safety of the plant and the health of the child. Regulations pertaining to personnel are usually quite cursory. Such regulations for group and family Day Care personnel deal with the questions of age and physical health; mental health (including emotional stability and personality factors); and academic background. As a general rule, the larger the facility and the more different it is from the home the higher the standards for the personnel. For example, in the state of Kansas, requirements for a Family Day Care mother relate only to age and physical and mental health. In a group Day Care Center serving fewer than 16 children, no explicit academic or experience qualifications are required for the director of the center. However, if a center serves more than 16 children the director must have a bachelor's degree in child development or preschool education plus at least once year of experience.

State regulations on age are quite explicit and usually require at least one person between the ages of 21 and 65 to be in a supervisory position. Requirements for physical examinations and other preventive medical treatment are also clear. However, the situation is somewhat different for mental and emotional health and personality traits; the regulations stress requirements but nowhere define how such competencies may be judged empirically. Considering the importance of the interpersonal relationships in a Day Care situation, objective measures are clearly needed to ensure the enforcement of these standards.

The academic and experiential requirements for Day Care personnel are minimal in most states. No state has special training requirements for personnel in either "in-home" or Family Day Care homes, and approximately a third have none for those in group Day Care centers. The position most frequently based on training and experience requirements is that of center director or administrator. These requirements usually call for some college training, including courses in child development. The state with the highest requirements asks that the director have a total of six years of combined college training and practical experience, in ratios of either two to four years of four to two. Although many states have no

training requirements of any kind for aides, several states--including many which have recently revised their regulations--require that all child care aides and all employees responsible for caring for children either be high school graduates or have attained, or be working toward, a high school equivalency certificate.

As Day Care is becoming more widely defined as a developmental program for young children, there is a concomitant recognition of the need for highly skilled personnel with specialized training. Thus, training requirements for child care workers are being raised. The question of what constitutes satisfactory or the best kind of training is not yet fully answered. Nor has the issue been resolved as to whether either a social work or an elementary teaching background can be interchangeable with, or even adequate to, early childhood education. Some states, like California, are setting up a special credential for early childhood teaching.

In all probability, requirements will continue to become more stringent as the educational/developmental importance of Day Care programs become more widely recognized. This trend, however, scarcely affects present Day Care personnel as most states include a grandfather clause exempting present workers from the new, higher standards.

As more and more programs are funded at least partly with federal monies, the Federal Interagency Day Care Requirements will probably become the national minimum. Both the required and the recommended qualifications for Day Care personnel under these regulations are outlined in Table 1.

Federal Laws Affecting the Training of Day Care Personnel

The formulation of several laws providing support for the training of teachers serves to discourage students from choosing a career that involves working with young children. One specific case in point is the Teacher Corps, which does not place any corpsmen in pre-kindergarten programs. Another such authority is the National Defense Education Act student loan program which provides loan forgiveness to teachers who, subsequent to their training, take jobs in poverty area schools, but does not provide the same incentive to students who choose to teach in preschool programs in like areas.

The federal government, however, is beginning to make an investment in the training of early childhood workers. Most of this support is available for the training of paraprofessional workers. Funds for paraprofessional training projects are available from the U.S. Department of Labor through the Neighborhood Youth Corps, the New Careers Program, the Work Incentive Program, the Concentrated Employment Program and under the authority of the Manpower Development and Training Act. The U.S. Department of Health, Education, and Welfare can fund the training of both professional and paraprofessional early childhood workers for home economics under its programs for education grants to state boards for vocational education; under the Child Welfare Services grants for training; and under the Education Professions Development Act, for training professional and paraprofessional teachers and aides. In addition, Head Start funds are used for in-service training of Day Care aides.

CURRENT STATUS OF RESEARCH

A review of the literature indicates that there is a paucity of empirical

Table 1

FEDERAL INTERAGENCY STAFF QUALIFICATIONS*

Title	Recommended Qualifications	Required Qualifications
Director of Child Development Program	Advanced Degree in Early Childhood Education, Social Work, Psychology, or related fields plus relevant experience, particularly in working with disadvantaged children	3 years of experience or formal training in working with young children
Director of Education Program	Degree in Early Childhood Education and relevant experience with pre-school children and poverty	3 years of teaching experience or formal training in Education or Child Development
Director of Social Studies	MSW in Social Work and substantial experience in comparable problems working with poverty families	3 years of experience or training in welfare or community service work
Director of Nutrition Program	BA in Home Economics and 2 years relevant experience	2 years in Nutrition and Food Service
Coordinator of Parent Activities	Professional with training in Human Development, Sociology or Community Organization; experience working with adults in target areas	When professional is not available, parents with minimum experience and potential to function in administrative capacity should be considered
Coordinator of Volunteers	None	Paid or volunteer capable administrator
Director of Career Development	Degree or experience in Vocational Guidance Counseling, Manpower, Industrial Relations, Social Work; relevant experience	Administrative skill and ability to work with other staff members and institutions

Table 1 (Continued)

Title	Recommended Qualifications	Required Qualifications
Teachers	BA in Early Childhood Education, Nursery, Kindergarten; relevant work experience teaching disadvantaged preschool children	Some non-certified teachers who are experienced, bilingual and have personality characteristics needed to work successfully with young children
Teacher Aides	Informal experience, personality, potential to perform duties, is poor at time of employment	None

* See Head Start Child Development Program: A Manual of Policies and Instructions. Office of Economic Opportunity, Community Action Program, Washington, D.C., September, 1967.

data on the success of staff selection procedures and effectiveness of formal and informal training for Day Care. The most relevant research is based on either half-day nursery school programs which are primarily designed to provide children socializing experiences or from Head Start projects which are intended primarily as compensatory educational programs for disadvantaged children. In both cases, the goals are not entirely congruent with those of all day child care for working mothers. One study, supported by the Child Welfare League of America, Inc. (Ruderman, 1968), provides some data on Day Care. This report calls attention to the fact that Day Care is taking on a "class caste character" because one-parent children, the poor and others in need of welfare services are being segregated from middle class children whose mothers also feel a pressing need for more Day Care facilities. The implications of such segregation for staff selection and training (as well as for child development) need to be scrutinized by researchers.

The Ruderman report provides excellent coverage of the various kinds of arrangements made for the daytime care of children--ranging from no formal arrangements through group and Family Day Care. However, there is little hard data in the study on the training of those who are giving care. It is reported that "the family day care mother is, at best, a high school graduate (often she has much less education than this); that she has little or no formal training for her work; that she has no association with professional child care organizations." The lack of efforts to develop a planned program for Family Day Care children was found to be the rule rather than the exception. This report recommends more group care based on a combined use of highly professional and non-professional staff.

The value of selection data when subjected to statistical treatment is extremely biased by characteristics of the local setting. Often the type of person selected depends on the locality in which the project is developed. For instance, the staff may have to be selected from women who live a few blocks from the center, need extra income and can work only split shifts. A locale may also favor certain programs over others, as in California where half-day nursery schools and Head Start get the best people because of the differential salaries.²

In small towns or in inner city poverty neighborhoods the lack of employment options can yield very competent people because the vocational status offered by an organized community center is more desirable than domestic service. A promising trend--but one that introduces another variable to confound the global description of who works in Day Care and how he must be trained--is the march of upper middle class young people into work which is "meaningful" rather than that which offers only materialistic rewards. There are also indications that more young Black men will enter the field on return from service. The latter is a function of the growing awareness of the influence of the male on the development of young children as well as the new commitment of youth to improving the lot of future generations of Black people. This variation in availability of personnel and in the kinds of persons motivated to work in Day Care calls for much more observational and descriptive evaluation than mere reporting of statistics. The latter has proven about as valuable as a city's predictions of how many suicides it will have in the next year; the figures are impressively accurate,

2 Personal Communication, 9/14/70. Elizabeth Prescott, Pacific Oaks College, Pasadena, California.

but it is never known who the people are that will commit suicide.

Unfortunately, advantage has not been taken of the opportunity to evaluate staff of the Day Care centers that survived the all out push for child care during World War II. With the advent of Head Start there was an initial intense interest in such evaluation. However, after the initial testing of the staff--often comprised of the only people who were available to serve--the research emphasis shifted to strictly client outcomes, and IQ or another test score become the single dependent variable. Since there was little in the way of criteria for setting standards for staff performance, in what was new and frankly experimental, teacher characteristics, as a single unit apart from total staff characteristics or staff interaction, were generally correlated with children's mean gain on one or another cognitive variable. An excellent survey of Head Start research on teacher characteristics has been made by Grotberg (1969). A number of the studies reviewed, although based on Head Start, would be directly relevant to all day programs and should be replicated to see if similar outcomes would occur both in similar and in different types of settings, especially in small towns as contrasted to the urban settings where most Head Start research was conducted. A few of these studies included measures of social attitudes, self-esteem and other social phenomena such as identification; however, by the very nature of the Head Start undertaking, most linkages between teacher characteristics and outcomes were formed along cognitive lines. Because Day Care assumes responsibility for balanced development and not simply cognitive goals, the base of future research should be broadened to focus more on the total team and comparisons and contrasts between team styles. It should not be limited to the assumption that the teacher is the sole influence on the child during his all day placement.

Project Head Start, as pointed out by Grotberg (1969), was initiated on the basis of a set of general hypotheses. Now we are entering into a phase where what has been learned can be further inspected, so that "discoveries serve to redirect efforts along alternative routes..." It is hoped that subsequent research results will not only be reported by mean gain in a test score but examined for the ways in which individual children have or have not profited from this experience.

The weakness in the traditional approach is succinctly pointed out by Murphy (1969) when she urges that two contrary tendencies in the same group be inspected for what was going on in the lives of the individual children contributing to the group norms. In addition, she points out that we "need more study of the differences in individual children's responses to whatever is offered or withheld..." The same principle should apply to measuring the success of staff training efforts.

Some workers have attempted to document their staff training experience. Keister (1970), for example, has done so in relation to training the para-professional staff in her Day Care center (see Arnote, 1969). She notes, however, that such efforts must be ongoing because much remains "to be learned about identifying the personal qualities that underlie success in a program of infant care and about defining the content of both the formal and informal training needed for this and similar efforts. These 'discoveries' are to be the focus of Phase II of this project and the subject of study/research...during the coming year."

Prescott and her associates (1967) have probably studied Day Care teacher characteristics more than any group in the country. One relevant conclusion from their voluminous work is that: "Program quality increases as the amount of special training of teachers and directors, especially teachers increases" (Prescott and Jones, 1969). Naylor and Bittner (1967) developed a 16 week curriculum model for preschool teacher aides. The selection test battery was reported to be successful. The use of the Nelson Reading Test revealed that many mature applicants without high school read at higher levels than did recent high school graduates. The verbal portion of the Illinois State Employment Service Teacher-Nursery School Battery B-286, "seems to be a significant and reliable criterion for selection;" however, the general portion had "little significance for training sub-professionals." Further, the Parent Attitude Research Instrument (PARI) test of attitudes toward children showed "a significant decrease" in scores in the desired direction on the post test. Beller (1968) has devised a promising series of scales for the measurement of teaching styles. He found two separate factors which seem to be valid predictors of both social or interpersonal teacher behavior and the effectiveness of teaching on cognitive tasks under intrinsic reinforcement.

Although not an exhaustive review, this coverage indicates that great gaps exist in what has been empirically documented relative to selecting and training various types of personnel for service in Day Care. Darkness often prevails over light because a pilot study is not repeated but revised (Klaus and Gray, 1968) and because only successful studies are reported, and not failures (Chilman, to be published).

CURRENT PRACTICES IN STAFF SELECTION

A spot check was made by this author, and others, of current practices across the country in selecting personnel for working in Day Care. Due to time limitations, no attempt was made to attain a systematic, all points coverage by any pre-determined criteria. Rather, efforts were directed simply at gathering gross impressions of the degree of variation or similarity between settings at a precise point in time--Summer, 1970. A very brief interview schedule was prepared in order to obtain the same information from each informant. Contacts were made in the state of California, Florida, New York, North Carolina and Pennsylvania.

Surprisingly, these observations led to the impression that there are greater similarities than differences among centers in general organization and philosophy. It should be noted, however, that the focus was on public or non-profit agencies rather than proprietary facilities and that greater attention was given to group rather than Family Day Care.

Among the centers observed, the proportion of trained or partially trained (college students) staff appeared to vary directly with extent of the programs' involvement with an institution of higher learning, that is, the greater such involvement the greater the amount of training. In one city, where 26 centers had been initiated under federal auspices and later subsumed by the state, there were only two teachers with college degrees and these were in fields unrelated to child care. In addition, there were two pre-professionals who held certificates in child care. The remainder of the staff had been trained on the job. In this instance,

if selection were dependent on staff meeting state requirements, and personnel were not retained under a grandfather clause, these centers would be forced to close for lack of qualified applicants. In another city with three commercial Day Care centers, the staff to child ratio was reported to be one adult to 22 children under two years of age.

No formal tests were used in the selection process in any setting contacted. Rather, all personnel were selected on the basis of one or more interviews. These were frequently conducted by several people, if the process involved more than one interview. In the case of the traditionally accredited personnel such as head teachers, social workers, nurses and pre-service training non-degree personnel, both academic background and professional references were checked. Untrained personnel were judged by the adequacy of both the application and personal references and on the basis of the interview. In many cases, selection procedures also included a spontaneous observation of the applicant in contact with the children. According to informants, probationary periods are deemed highly desirable but are often hard to terminate because of local political pressures.

Only one informant reported that she would accept a junior college applicant, sight unseen, if the center were in dire need of replacement staff. This decision was based on the informant's past experience with graduates from several junior college programs. Interestingly, she commented, that under such circumstances she knew from experience that employees from one of these colleges would require more of her time and effort than employees drawn from the other types of colleges. She preferred the pre-trained person over the non-trained because she felt that the person who did less well did not have a suitable personality for working with children and would eliminate himself from the field before the training period was over. Another benefit of using pre-trained persons, she added, was that "at least the minimally educated graduate would have the vocabulary." She expressed the fervent hope that communication would increase among junior college departments and that this would result in consistent quality among graduates.

All informants agreed that "the right person" was more critical for effective Day Care than any set of academic credentials. This judgment applied to all categories of staff.

It seems that a fertile field for research awaits cultivation around this point of "the right person." Among those experienced in the field, there appears to be an almost instantaneous understanding about the qualities of the kind of person who works well with children. Yet, we can draw on their wisdom until we find ways to explicate the factors that these people are responding to when they make quick decisions from the impressions they glean from the personal interview. With the rapid increase in Day Care centers, many new workers will have to make these selection decisions with little past experience to draw on. Thus, clear-cut selection criteria would be of inestimable value.

On the assumption that some or all of these subjective reactions could be put into words and made public, they also could constitute hypotheses to be investigated. Thus, each contact in this spot-check was asked to identify the cues he responded to in interviews. The more pointed responses came when the question was posed from the negative side - that is: "What might come out about a person in the interview that would lead you to reject the applicant?"

If one reflects on known successful child care serving people, it seems apparent that they encompass many different types. It must be concluded that there is a wide variation among people who can give children growth-promoting care. On the other hand, people who cannot provide children such care should stand out sharply in one's recollections. It is the unique qualities of these unsuccessful individuals which could serve as guide posts in assessing whether subjective impressions have predictive value. Such qualities were one object of this author's queries during her recent visit to Day Care centers. The accompanying table lists a sample of the range of answers provided by informants. (See Table 2)

Among these informants, there was general agreement that food service workers should both like and be experienced with children. It was also felt these workers should be willing to experiment with food, not be "hurt" if all the food is not eaten, and welcome children into the cooking area. There was also concurrence on the recommendation that social workers, nurses and all other professional personnel must have team training specific to working with children as well as ongoing in-service training for their work as a group. Separate training sessions were viewed as desirable, at times, provided that training would not be done by hierarchies, as in the early days of Head Start where aides were trained with aides and so on.

The reader interested in further information on staff selection of child care workers may wish to consult the report of the proceedings of a National Conference on Child Care held in Pittsburgh (Besaw, 1969). This monograph lists the interview cues which were explicated by the staff of the Pittsburgh programs as well as additional compilations by several nationally recognized professionals.

PROGRAM MODELS

Within the past few years many new training programs have been developed, some within an academic framework and others without the formal accrediting component. Among these are a variety of models and strategies for educating which nonetheless share one common element: each is a variation built upon the knowledge gained from working with healthy middle class children. Thus, there is a search for tactics that will reach children with special problems (e.g., using the new mental health worker) and for reaching children whose culture has not prepared them to profit from methods that are successful in a different milieu. A representative--but by no means exhaustive--list of such programs is presented in Table 3. Curricula for all these programs are included in the proceedings of the National Conference on Child Care (Besaw, 1969) or may be obtained from the individual schools.

Since the writer is most familiar with the Pittsburgh Program in Child Development and Child Care, and knows the pitfalls encountered and what worked best, it will be used for illustrative purposes to highlight critical issues in educating child care workers. In this instance, the need for the pre-professional program became apparent about 1960, when it was realized that the graduates from the Masters Degree Program--then seven years old--required sufficiently high salaries so that agencies were no longer using them to give direct services to children. They were, instead, supervising Child Care Workers and doing in-service training. A proposal was submitted

Table 2

Qualities Sought in Day Care Center Staff

Based on Interviews with Day Care Center Directors: Derived Categories
Supplied with Illustrative Sample Quotes

1. Basic Liking for Children
"warmth and flexibility to take the minute-by-minute testing"
2. Empathy for Children; Ability to Accept Children at Their Present Developmental Level
"never cease to enjoy the jokes children tell and even their pleasure messing in mud - and be refreshed by these experiences rather than bored"
"expectations at children's level, not expectations worker would like for cleanliness, neatness, etc."
3. Flexibility
"may be young or older - it's not a matter of age - but willing to be open to change"
avoidance of "this is the way we did it last year" approach not
"overly meticulous"
"people who can't see other ways of doing things" (are undesirable)
4. Lack of Prejudice
avoid worker who "looks at child as 'poor child' rather than as an individual"
5. Bright Without Being Overly Intellectual
"this person (overly intellectual) may make a good supervisor - this meets intellectual curiosity...just working with children is not exciting enough"
6. Educated but With Much Practical Field Experience
avoid "a person from an educational program where 'something hasn't happened' " to the person (self-awareness)
avoid "the fixed - they are so set by what they learn from books, they can't be flexible"
7. Understanding of and Liking for Parents
"able to accept family's experience as valid if different from teacher's"
8. Person Not Seeking Fulfillment of Own Needs Through Children
"people who can give to children but encourage them to use own resources and permit them to grow away from adult"
not "people who just love children - often come to work with children in hopes of satisfying their own desires to be mothered and protected"

Table 2 (Continued)

9. Mature Functioning as Adult, with Interests and Investment Outside of Child Care
 "being a person for the child"
 "people who can do outside things"
 "people who are happy being adults and receive satisfaction from working with adults--don't work for children against adults"
10. Capacity for Further Growth as a Person
 people with "intelligence and educability"
 "will she take what she has one step further?"

Table 3

DEGREE	SCHOOL	COMMENT
Certificate or Associate of Science	Community College of Allegheny County Department of Social Services Pittsburgh, Pennsylvania	Programs in Pedology
Certificate or Academic Credits	School of Social Work University of North Carolina Southeastern Child Care Association Chapel Hill, North Carolina	The Chapel Hill Workshop
Certificate or Undergraduate Credits	Temple University College of Education Philadelphia, Pennsylvania	Social Welfare Programs for Child Care Workers
Certificate	University of Washington School of Social Work Seattle, Washington	Courses for employed child care personnel
Associate	Bristol Community College Fall River, Massachusetts	Child Care Technology Program
Associate in Arts	Chicago City College Human Services Institute Chicago, Illinois	Training Program for Child Care Personnel

Table 3 (Continued)

DEGREE	SCHOOL	COMMENT
Associate in Applied Science	Dutchess Community College Department of Social and Community Services Tech. Poughkeepsie, New York	Child Care Program
Associate in Applied Science	Purdue University Department of Psychology Fort Wayne, Indiana	Mental Health Program
Associate in Arts	Rhode Island Junior College Department of Educational and Social Services Providence, Rhode Island	Program for auxiliary personnel in child care and related courses
Associate in Arts	Suffolk University Sociology Department Boston, Massachusetts	Social Welfare Program in Child Care
Bachelor of Science	Knox College Galesburg, Illinois	Pilot Project terminating
Bachelor Equivalent	University of Montreal Department of Psychology Montreal, Canada	Program for Psycho-Educateur

Table 3 (Continued)

DEGREE	SCHOOL	COMMENT
Master's	University of Maryland Counseling Services Department College of Education and Division of Child Psychiatry School of Medicine Baltimore, Maryland	for: Child Development Specialists, School Counselors, etc.
Bachelor of Science and Master of Science	University of Pittsburgh School of Health Related Professions Department of Child Development and Child Care Pittsburgh, Pennsylvania	Department of Child Development and Child Care, undergraduate and graduate programs
Master of Education	Tufts University and Judge Baker Guidance Center Boston, Massachusetts	Program for child care counselors

and a grant awarded³ to develop a program which would yield a certificate. The first trainees entered the program in September, 1963.

High School graduation or evidence of equivalent ability was used as a screening device for admission. All applicants were interviewed by three faculty members. No tests were administered for selection purposes. However, a battery was used after training had begun, although such participation was voluntary. Students were assured that no staff member would see the results. The testing was done to develop a pool of data which would have value only when a sample of respectable size could be evaluated against outside criteria from on-the-job performance.

Two studies have been made of these data (Halechko and Saxe, 1969; Cordori and Cowles, 1970). Both concluded that the interview technique served as a better predictor of success than background or test variables. Both studies encourage attempts to specify more fully the interview cues that serve as selection measures.

The trainees in the Pittsburgh Program were about evenly divided between recent high school graduates and mature women: 51% were Black and 49% white. Of those who completed training, three were men. To our surprise, there was a wide spread in socioeconomic status, ranging from welfare recipients through the solid, upper middle class. Out of 114 admissions, 97 received the certificate and currently 87 are working with children in a wide variety of settings, including Day Care. The dropouts were not attributable to academic factors.

The format for the formal training included direct work with children every morning for 45 weeks and two two-hour per week didactic sessions. The 45 weeks were divided into three 15 week blocks in which experience and instructional content changed from the study of the normal child to special problems, such as intellectual, physical, economic and psychosocial deficits. The last fifteen weeks were devoted, both in practice and theory, to a focus on the severely emotionally disturbed child. Experience covered an age range from preschool through adolescence. Eight hundred practicum hours were required before the internship year began. Certification was awarded after successful completion of a year of paid employment.

The training staff was multidisciplinary. There were no problems in recruiting trainees. During the last admissions period, there were 75 applicants for 15 slots. Local colleges now allow from 24 to 36 credits for the Pittsburgh Program's certificate.

The Pittsburgh Program has been smoothly transferred to Allegheny Community College where it is possible to leave the educational escalator after one year with enough earning power to return for a second year and earn the Associate in Arts Degree. In September, 1970, a Bachelor of Science Program was put into effect as the University of Pittsburgh School of Health Related Professions. Students are admitted in the Junior Year. This program will fill the remaining rung in the career ladder, from high

3 Supported by NIMH Grant #5TI-MH-7919 and the Western Psychiatric Institute and Clinic, School of Medicine, University of Pittsburgh. These programs are now the Department of Child Development and Child Care, School of Health Related Professions.

school Child Care programs through the Masters degree.

Out of five years' experience with the Pittsburgh Program, some of the conclusions we have drawn for training child care workers might be summarized as follows:

- 1) The study of normal development should be followed by the study of pathological conditions. To understand the wide range of normal problems of normal development, one must also be experienced with behavior that is patently deviant.
- 2) The best learning situation obtains when the members of a group of trainees are selected to combine young with older, poor with affluent and persons of various ethnic origins.
- 3) No person should be admitted to a training program before the job market has been fully assessed. People from poverty areas have met with enough disappointments without being trained for new dead-end careers. A program should not be judged a failure because its graduates can not find jobs. Success requires a total commitment on the part of the faculty to educate agencies in the ultimate economy of hiring pre-service trained personnel and to studiously match a candidate to an agency according to the unique "personalities" of each. An alert staff comes to know that a student who would unquestionably fail in one type of agency could succeed in another type, for example, one that had a warmer, more flexible administration.
- 4) All training should be linked to the established accreditation system. We found it both enlightening and entirely logical that people working under far from optimal conditions were still able to find satisfaction in their work, once they knew their certificate gave them access to the academic ladder. Given such options, some decided they did not want to go on for a degree but wanted to take courses to increase their competence. This practice is contrary to predictions of those who believe in keeping people uninformed so they will "stick" the one job they can do, based on the claim that further education will "train them out" of the field. The upwardly mobile are flowing into the academic stream which is, after all, to the benefit of society.
- 5) An all out commitment must be made to the agencies that provide field placements. Agencies must be reassured that the training staff will provide immediate assistance, upon call, whenever they suspect trouble with a student. This is a promise that must be kept. Agencies need to discover that they can cope by themselves and that the "University" can be sympathetic to those who live in the "real" world and does not simply invade the agency's domain to be authoritarian and critical.
- 6) Students must be fully alerted to the threat they pose when they enter a setting where others learned "the hard way," without training. This is, of course, a great threat to the integrity of the freshly educated since they must stand by and watch

practices which they have been taught are detrimental to children's development. They need explicit counsel on the wisdom of "making haste slowly" in their role as change agents. We dramatize this situation by describing it as the Joan of Arc Syndrome: like Joan they are right, but in proving their point they too are burned at the stake since they end up being fired. Compromising with one's integrity--within reason--allows one to remain an actor in the scene so that ultimately one can establish better practices for the children.

- 7) Actual practical work with children should take high priority over classroom hours.

A number of demonstration projects are currently experimenting with innovative features for serving children. Other programs have evolved specific strategies for delivering training to trainers. Still others have concentrated on strategies for concept development. Many of these merit consideration for replication and/or application to Day Care. Some examples include:

- 1) The Child Welfare League of America pilot project, under the direction of Berman (1970). This project has trained unemployed or underemployed persons as child care workers. The training took place in five cities, simultaneously, and the training periods covered 12 weeks.
- 2) The Early Training Project, also called (DARCEE) under Gray (1967) at George Peabody College for Teachers. The program was a five year intervention study of young Black children. It centered around attitudes and aptitudes relating to school achievement. A Home Visitor Program was added for ongoing support.
- 3) The Children's Center of the State University of New York, at Syracuse under the direction of Lally⁴ and the Institute for Development of Human Resources, University of Florida, under Gordon. Both of these programs have developed training procedures for parent-educators. In the first instance, the parent-educator begins work with the mother in the third month of pregnancy to set the stage for the program that will continue after the child's birth and entry into Day Care at six months of age. The Florida program uses pre-professionals to go into the homes and teach concepts to mothers which they can use in teaching their children.
- 4) The Remote Teaching Institute, a project negotiated and directed by Meier, assisted by Brudenell, Nimnicht and McAfee. This program educates teachers in their own schools who in turn teach others. The strategy not only provides for wide dissemination of education over vast geographic areas but also permits appropriate variations to be made according to local characteristics and needs (Meier and Brudenell, 1968).

4 Personal Communication, J. Ronald Lally, 7/70.

- 5) The J.F. Kennedy Child Development Center, University of Colorado Medical Center, under the direction of Meier. This program instructs an assortment of professions in approaching young children who have a slowing down or interruption of all types of developmental processes--social, cognitive, etc.
- 6) Mothers' Training Program: The Group Process, a project directed by Badger (1969). In this program, mothers are trained by teachers to implement an infant tutorial program using their one to two year old children as subjects.
- 7) A project directed by Karnes (1969) at the University of Illinois at Urbana. The program is designed to teach parents, older siblings and even younger teenagers the skills and knowledge which are essential in teaching pre-school disadvantaged children.
- 8) Learning to Learn School, under the direction of Sprigle (1970) in Jacksonville, Florida. "This is a three-year program (age four through first grade) which related and correlates the four variables that come to bear directly on education - the parent, the child, the teacher and the curricular materials." For a successful school experience, Sprigle would assign a weight of 50 to the teacher, 30 to parents and 20 to the curriculum.
- 9) The New Nursery School Project under the direction of Nimmicht, et al., (1967). This is a program for three and four year olds, in which the entire school is organized as an autotelic responsive environment. The principle that characterizes this environment is that reward comes from the sake of an activity itself and not from intrinsic rewards or from a mere avoidance of punishment.
- 10) The ongoing in-service training program at the Residential Treatment Center, Convalescent Hospital for Children, Rochester New York under the direction of Koret⁵. The training program is operational exclusively for the purpose of training for residential care, and trainees must, as a minimal requirement, be at least high school graduates. The program has recently become associated with the Community College and is adding specific training for positions in Day Care.

CURRICULUM CONTENT

There are unfortunately many schisms among the most experienced leaders in the field of preparing students for work with children. This foment can be healthy, unless feelings of dissent lead to irrational disregard of empirical evidence as it accrues. The facts are certainly not all in. Experimentation with various models is definitely desirable, particularly where support is given to the replication of models in similar locales--small town, rural, metropolitan, etc.--as well as to pure innovation.

⁵ Personal Communication, 9/16/70, Dr. Sydney Koret.

The combinations and permutations of disagreement are of the order of: home Day Care for infants versus group care; structured curriculum versus the "discovery" approach; a cognitive development emphasis versus a psycho-social development focus; use of parents in groups with their own children versus placement of parents with other children (to avoid problems of distress for a child over sharing parent with others); homogeneous age groupings versus family-range groupings; use of teenagers or slightly older children to serve as child models and helpers versus holding out against introduction of more untrained persons; and the "old chestnut" of whether volunteers "who don't have to depend on the work for their livelihood" are worth the time it requires to train them.

The research designs at the Syracuse Project, (Caldwell, Lally), the University of North Carolina at Greensboro program (Keister) and the Institute for the Development of Human Resources project at Gainesville, Florida (Gordon) have a built-in opportunity to investigate some of these comparisons. In an excellent review of current issues in research on children under three, Murphy (1969) points out that: "One major error underlies many failures to provide for adequate development: the notion that 'We have the answer'...disappointments have followed each one track attempt to follow 'the' one important prescription..." She concludes: "We can expect that new knowledge will emerge from each of these experiments in proportion to the investigator's receptiveness to unanticipated data and careful scrutiny of the processes that contribute to expected results."

Relative to the incendiary issue of concept training versus "discovery," the work of Palmer (1969) is of particular interest. The study involved a total of 310 Black males. Seventy boys served as controls and attended the center for assessment purposes only. The 240 children in the experimental group were divided into two training treatments. One group was systematically taught concepts, progressing from simple to complex. The other group was provided with the same materials and instructors, but did not have the concepts labeled by the instructor. The instructor also did not initiate any conversations with the second group. The instructors worked with the children on a one-to-one basis in both groups. The results between controls and the experimental groups were mostly in the predicted direction and were maintained for a year in the follow-up assessment (see Palmer, 1969). However, the finding that surprised the investigators was that "the concept training did not generalize to other dimensions of behavior any more than did the discovery condition."

In support of these experimental results, Elkind (1970) concludes that there is no preponderance of evidence that formal instruction is in any way superior to the traditional preschool, "at least for the middle class child... Indeed, it is becoming more and more apparent that formal instructional programs are as inappropriate at the primary and secondary levels of education as they are at the preschool level."

Docia Zavitkovsky,⁶ long active in Day Care in California where there has been continuity of service through Public Instruction since the establishment of centers during World War II and currently the Director of the Lincoln Child Development Center, has quite charmingly stated her views on this issue of formal versus discovery curricula. She submits

⁶ Personal Communication, 8/70.

that since science can now give us the hope of living to be 100, it seems that we could allow children at least five years in which to discover the world on their own terms rather than those laid down by authorities.

Perhaps the key lies in whether the child we work with is or is not of the middle class. Many of those who have lived out the Head Start experience contend that once the middle class child is "turned on", there is no stopping him. At the same time the economically warped child is being "turned on" to catch up, however, his middle class peer is just gaining that much more ground. Some feel that 'never the twain shall meet,' unless special methods are used on the initial laggard. From Palmer's (1969) work, it was found that what was taught was less important than the adult-child relationship. This finding lends weight to the rather common belief that the staff-child ratio is a critical variable in working with the poverty child.

In her communication to this author, Zavitzkovsky made two other points relevant to curricular matters. She cautioned against the easily made assumption that an education which prepares one for caring for three and four year old pre-schoolers is a guarantee that this knowledge will transfer directly to Day Care. The two kinds of work are very different and call for different programming. She also stressed the importance of staff willingness and dedication to parent participation, if gains with children are to be maintained. Above all she cautioned against the premature assumption that parents aren't profiting from the program. The harvest may not be ready for reaping until at least the second year of participation. In personal communications, Gordon, Lally and Sprigle all stressed the need for staff training for work with the parents. In the Syracuse Center, Lally's parent educators contact the mother during pregnancy to set the stage for the infant's later enrollment in the center. Gordon stresses the difference between parent involvement and participation. Much the same issue is of concern to Sprigle. He underscores the reality factors operating in the relationship between staff and parents. Parent involvement is not synonymous with parents setting up the program: if they knew how to educate, there would be no need for the educator to intervene. Rather, the staff provides the leadership and helps the parents to see how they can be extensions of what is taking place at the school.

All persons contacted in the centers spot-checked by this writer deplored practices that demean parents or test children's loyalties to their families. It is imperative that personnel at all levels be carefully instructed in the appropriate mode through which job satisfaction and personal fulfillment are attained. This point is well made by McFarland (1963): "The development of the professional identity of the nursery school teacher involves the complex task of distinguishing between primary motherhood and professional activities through which one can channel motherly feelings and derive fulfillment through creative professional work." The staff must be helped to never make the mistake of thinking they are more important to the child than his own parents.

From the foregoing, it is eminently clear that a pre-service curriculum cannot cover all the special refinements that would be required to gird a graduate to be skillful in each aspect of the diverse philosophies on curricula. Many persons interviewed by this author strongly questioned

if retraining of an elementary school teacher isn't more difficult than beginning with a novice. One who has the natural motivation to mother may be more open-minded than someone who needs to see marked evidence of cognitive achievement as an immediate goal.

In a National Conference on Curricula for the Career Ladder in the Child Caring Professions⁷ (Besaw, 1969), conferees concluded that there should be a core curriculum that would be common for all child caring persons. They felt that different emphases could be optional, so far as is practical, within a given program. Schools should vary and be known to each other for their specialized viewpoint so choices between schools could be made, just as one might choose one law school for criminal law or a different one for corporate law.

CURRICULAR CONSIDERATIONS FOR THE FUTURE

There can be no prescriptive curriculum for educating personnel for Day Care which could be adapted to nationwide needs. Colleges and universities, therefore, should individualize programs according to geographic targets--urban, rural, small town or ethnic concentrations--and according to a particular theoretical stance. It is generally agreed that when one or another specialized focus is the innovative trademark of a curriculum, it should not be emphasized at the expense of balance among the needs for nurturing care relative to physical, emotional, cognitive and social development.

From reading research reports one may get the impression that what is being demonstrated as a new approach is the sum total of all that is being done to or with the young subjects of any particular experiment. The sterile mold into which research reports are cast seems to preclude mention of the experiment's being embedded in an all day program that includes the familiar components of "traditional" Day Care, where there is time for discovery, free play, snacks, naps and outdoor play supervised by mothering people who respect the integrity of children. This author's site visits revealed that two programs which sound diametrically opposed to each other philosophically do, in fact, operate very much the same for the greater part of the day. (These observations do not apply to commercial facilities.)

The critical variable in assessing which approaches to programming for Day Care will ultimately serve the best interests of children and their parents rests, in part, on the motivation of the staff. If the children are being "used" to support the self-fulfilling motives of an ambitious theoretician who has no real interest in enhancing the growth potential of the children, then there is cause for alarm.

Systematic use of video tape of actual transactions should correct for imbalanced focus in written reports. Taping by objective trained technicians at pre-planned intervals can be powerful evidence of what is or is not working in the curriculum which then, in turn, can be incorporated

7 Pittsburgh, Pennsylvania, May 20-23, 1969, sponsored by the National Institute of Mental Health Grant #MH-8617, through University of Pittsburgh, Western Psychiatric Institute and Clinic, Programs in Child Development and Child Care. Proceedings edited by Besaw.

into training procedures.

Provision must be made for both horizontal and vertical mobility for child care workers. Career lattice provisions within state civil service classifications must be attained. At the same time colleges and universities must be encouraged to assist in the accreditation and professionalization of the new categories of child serving personnel.

Above all, we must collect more descriptive, on-the-job, staff performance record data to yield improved criterion measures of staff performance, relative to the discrete goals of each individual agency.

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CHAPTER 15

DELIVERY SYSTEMS

Irving Lazar

INTRODUCTION

How do children receive care? This question has no simple answer. The decisions which lead to a given system of services in a community come about through an amalgamation of factors and consequences which comprise the subject matter of this chapter.

The form which Day Care takes involves its purpose, its auspices, the decision-making and administrative bodies concerned with child care, the setting (group structure, facilities, etc.) in which services are to be provided and the constraints and financial and other resources within which a program must be devised. Each of these factors will be discussed in the opening sections of this chapter. In order to illustrate how each choice within each of these factors affects and limits choices within the others, examples of the more frequently found types of Day Care services will be examined in terms of these factors and suggestions will be made for the most appropriate sets of conditions for each.

THE PURPOSES OF A DAY CARE PROGRAM

The first variable which determines the Day Care system is its purpose. Historically, the largest impetus for Day Care has been concern for the children of mothers who needed to work outside the home. As was discussed earlier in this volume, Day Care services have grown with the increase of women in the labor force, especially with such employment peaks connected with the Civil War, as well as the first and second World Wars. The needs of widowed and divorced working mothers remain a primary purpose of Day Care today.

To the ranks of these mothers have come others who seek Day Care for their children. Increasingly, married women have joined the labor force to supplement the family income. Large numbers of women find full time home making unsatisfying and pursue careers or other activities outside the home for psychological as well as economic reasons.

Handicapped or disabled children are increasingly being enrolled in special Day Care programs in order to provide them with intensive and early remediation and training.

A growing number of parents enroll their children in group programs to enrich their social and cognitive skills, in the expectation that such programs will enhance their child's development.

Further, a growing number of children are placed in Day Care because

their mothers, though not at work, need such help in coping with their personal situations.

Finally, a newly developing group of Day Care services are designed to provide job training for women receiving welfare assistance.

There are other purposes of course, but these are the most frequent:

- (1) To care for children whose mothers must work outside the home.
- (2) To care for children whose mothers are supplementing the family income.
- (3) To permit women some opportunities for activities other than child-rearing.
- (4) To provide a setting for the special care of handicapped children.
- (5) To enrich the development of normal children.
- (6) To assist mothers in personal distress.
- (7) To train mothers for employment.

The primary purpose of a given Day Care program will affect its auspices, its sources of support, its target population, its program emphases, and the range and sources of its services.

For convenience we may identify three major types of programs:

(1) Custodial Day Care which simply provides for the safety of the child and supplies him with food appropriate to his age and the hours in which he is in attendance at the facility.

(2) Cooperative Day Care which provides custodial care and, in addition, makes other services available through cooperative arrangements with other agencies.

(3) Omnibus Day Care which provides, in addition to custodial service, a variety of health, educational and social services through the efforts of its own staff.

Obviously, the purpose of the program will be a primary influence on the type of program selected. Both the woman in economic stress who needs child care at the lowest possible cost, and the affluent woman active in community affairs whose child may not need any supplemental services, may well prefer custodial programs, whereas those seeking enrichment or remedial or compensatory care will prefer to create or utilize omnibus programs.

AUSPICES

Closely related to the purpose of a program is its auspice - which may in fact be the program's instigator. Different purposes will attract and construct different auspices and different sources of support. The nature of the auspice is a second major factor in the choice of program, in its administration, and in its system of delivery. In general, three types of auspices can be found in Day Care programs:

A. The Single Purpose Service

This type, be it public or private, for profit or not, has as its sole activity the provision of Day Care for children. Public and non-profit examples can be found with every type of program; proprietary agencies are typically custodial - some are of the omnibus variety; but very few are able to establish cooperative programs with non-profit or public agencies.

B. The Multi-Social Service

This category describes the Day Care program which is embedded within an agency that provides a variety of other services to people. Typical examples are found in settlement houses, Model Cities and neighborhood service centers, church supported agencies and family service agencies. These are usually private non-profit organizations, although an increasing number of public agencies are including Day Care in their service offerings. The writer knows of no proprietary examples, although some may exist. Although the multi-service type includes all the kinds of programs, the cooperative and omnibus models seem to be more prevalent than custodial programs.

C. Day Care as a Fringe Benefit

There are a growing number of Day Care programs sponsored by organizations which are not otherwise engaged in direct social services. Some factories, companies, federal agencies, unions, universities and job training organizations are providing Day Care as a way of stabilizing their labor force. Some hotels and shopping centers are using Day Care as a promotional device. One outstanding omnibus program was operated by the Kaiser Shipyards during World War II. Today, these types of programs tend to be primarily custodial with some health and/or educational services included.

As we shall see, the type of auspice not only affects the program but also determines both the level of financial support and the administrative burden under which the service must operate. As one moves from auspices of Type A to Type C, the amount of fiscal support increases and the amount of program autonomy and flexibility decreases.

DECISION MAKING

The nature of the decision-making body is clearly a major determinant of the delivery system and, though often indirectly, of the program and its level of support.

Paradoxically, the greater the role of consumers in the decision making of a program, the less the likelihood that the program will be adequately financed.

The situation is clearest in proprietary services. The owner makes the decisions. The consumer expresses his satisfaction by continued patronage of the service. The more affluent the clientele, the more likely they are to entrust decision making to the management of the program.

Typically, the non-profit agency has a board of philanthropically inclined citizens selected because of their prestige and affluence. Only rarely are board members also consumers of the Day Care services, although exceptions may be noted in parent cooperatives -- particularly those serving the children of college faculty and students.

The non-profit, single purpose agency is most likely to have a board specifically concerned with the program. Multi-service social agencies and those which include Day Care as a fringe benefit tend to have other priorities and be further removed from the action related to child care. Selection of the delivery system and program is more likely to be influenced by factors only indirectly related to the needs of the particular group of children to be served. On the other hand, such boards may have more knowledge of available options, less commitment to a single type of service system, and more resources with which to meet the needs of the program.

Perhaps the most complicated decision making systems are those which accompany federally supported programs where typically, decision making authority may be almost totally usurped before the support actually reaches the group providing service. In general, the more distant the source of support or auspice identity, the more complex the decision making process which consequently results in less real authority or choice for the operating body. Public funds must be controlled by the granting agency, and its disposition becomes a legal responsibility of every agency through which funds flow. Thus, each will impose choices and limits, leaving fewer and fewer options to the local body. As a result, many communities seek to have their major support come from community sources rather than more distant ones. The multi-service agency with an influential local board (usually without parent representation) can often supply such support, and by reducing dependency on federal or state funds, retain greater control of local options. One exception to this rule is the special case of "reimbursable services," such as in Title IVA of the Social Security Act. Instead of grants or contracts, federal support comes in the form of reimbursement of 75% of the costs of services already delivered to children and families. Thus, as long as the system and quality of care are acceptable to county and state welfare departments, there is little "dictation" of specific delivery or policy mechanisms. This reminder of the roles and limits of decision making bodies is a prelude to a discussion of the next major determinant of a Day Care system's form and program - its administration.

ADMINISTRATION

Our generalizations about decision making directly affect the flexibility and choices open to a local group, and must be considered as a vital factor in the design of a program. Also critical are the type of sponsorship, the relation of the service to the sponsorship, the selection of a director, and both the internal and external administrative arrangements. Failures to understand the roles of these variables have often led to the emergence

of Day Care programs very different from those originally desired by the organizing or instigating group. These administrative variables can be briefly delineated as follows:

- A. How many layers of administrative control are there? In the case of a small, independent proprietary center, there are none. The owner manager are the same person, and he, (or more usually, she) sets and administers policy. A franchisee, however, may have no local options at all, and be committed to follow exactly a program and system prescribed by the franchiser. In the local non-profit agency, the manager reports to his board. In a large city with a centralized agency, the manager may report to a supervisor who reports to an agency director who reports to a board. If the agency is receiving federal support, further administrative control and program requirements may be imposed by state or regional staffs, and at federal levels. Despite any intentions or promises of local determination, the planning group should count carefully the administrative layers which accompany any system of support, assess the commitment of each layer, and deduce the possible constraints or distortions of program intent which that system might impose.
- B. What happens in an operation is largely determined by the background and personality of the director. No matter how clearly a board defines policy, the local manager will do what he thinks is most important, in the way he knows best. An inexperienced manager may inadvertently create internal staff conflict which can destroy a program. For example, he can hire people for personal rather than technical reasons and thus destroy a well designed program or he may be unable to fire anyone, and so reduce program quality and staff morale. The director may have professional biases which focus the program in ways unintended by the sponsor or planning group. Observations indicate that directors of early childhood education programs who came from social work backgrounds rarely provide adequate nutrition services, do not use parents in the program, and tend to operate custodial programs for the children, regardless of their stated intent. On the other hand, directors recruited from the field of education usually provide adequate nutritional services and involve parents, but they tend to over-structure the children's activities, and stress cognitive over social development. It is thus essential that a director be chosen who agrees with and is capable of carrying out the program goals and that he not be hired -- as is often the case -- simply because he is available. Many communities would be well advised to first sponsor the training of an administrator before undertaking a program. Once a program pattern is established, it is extremely difficult to change it. There is reputed to be a sign on a dirt road in Texas which reads, "Pick your car carefully. You'll be in it for the next 24 miles."
- C. The internal administration can be crucial determinant of

program focus and staff turnover and, thus, affect the emotional climate in which children spend their days and the continuity of their care. Similarly, external administrative arrangements can increase community support or destroy cooperative arrangements originally agreed upon. The personality and skill of the director are important here, but so are other considerations, such as:

--Each auspice has a local image which is attractive to some groups and repellent to others.

--Is the center being used for purposes other than Day Care? Is it a base for local political development? A device for providing local employment? A tool for a particular ideology? A deliberate competitor of other Day Care services? To the extent that any center becomes identified with other purposes, it loses potential external support and complicates its external administrative relations. A distant sponsor is more likely to place constraints on a politically vocal director than on a politically neutral one. Despite the best of goals and plans, competent management becomes a critical determinant of actual program content and community support. Staffing patterns and supervision, which are related, will be discussed after clarification of the next important structural variable: the decision on the grouping of children.

GROUP STRUCTURE

The availability of facilities, population density, local and state laws, local attitudes toward child care, and the program preferences of funding sources all play a role in deciding whether a Day Care service will be provided through family homes, through separate Day Care centers, through public school systems or through a combination of these. While multi-room centers may choose to separate different age groups, Family Day Care typically includes a wide range of ages. Services designed for working mothers will typically serve all ages of children, while others will accept only children between the ages of three and five. Some provide after school care for children over six, either as their sole activity or in addition to the care of pre-school children.

The decisions about grouping -- in homes or centers, by age or not, by restriction of age range -- all automatically determine staff numbers and types, and supervisory needs. As we shall see later, the additional supervisory costs of a home based program need to be balanced against the facilities costs of a center based program in order to determine which, in fact, is more economical in a given locality. Population density, transportation costs and climate may make one system more desirable than the other, but may use money less efficiently. In general, a family home program can serve five children with one caregiver. Supplementary services and supervision need to be delivered to the home which, even in cities, means that a great deal of professional time is spent in travel. Any special equipment or toys must be provided in larger quantities than in a center program, and often the licensing of a single home is as time consuming as the licensing of a good sized center.

Centers need differing child staff ratios for different ages

of children and, because both supervision and supplementary services are centralized, can be provided less expensively. Locating a center within a school system can eliminate expenditures for fiscal administration, plant, and food preparation. Further, students can be used as aides to teacher supervisors, thus cutting Day Care costs by as much as 50%. Obviously, just as the grouping decision affects numbers and types of staff needed, that decision is in turn dependent upon the availability of the types of staff needed.

Indeed, no quality system can expand beyond its supply of qualified staff, and so programs usually must be prepared to invest in extensive staff training programs. Few communities have sufficient supplies of trained manpower in management, early education, nursing or social services, and will need to institute training programs in order to mount even a custodial care program of any size. Training costs are part of Day Care costs -- whether the monies are expended for training directly or through higher salaries for people already qualified by training. In many communities the failure to understand this necessity has led to programs of dismal quality and dubious value to children. Training costs do not cease -- they are not simply a start-up cost. Turnover of basic caregiving staff requires a continual system for training new people and employing new people who are already trained. This need has been approached in many ways -- and is discussed in detail elsewhere in this volume.

FACILITIES AND SETTINGS

An important influence on program design and delivery of services is the physical setting available to the service. Local fire and safety rules immediately narrow the choice of facilities and the distribution of age ranges which can be served. Obviously, pre-verbal infants and young toddlers cannot be cared for in a setting from which they cannot be evacuated rapidly. Unable to follow verbal commands or run quickly, such young children must be on the street level of a fire resistant building with many direct exits to the outside. Few houses meet this description and few buildings designed for other purposes can be renovated to meet code requirements at a feasible cost. In many areas, it has been found that the choice of program system may be dictated by the availability of space. A home based program may be the only available option in the absence of funds for construction or renovation to serve large groups of youngsters.

Even if a facility is found, the number and size of playrooms affect grouping and group size; the availability of a meeting room influences the programs for parents; and the location of the facility acts as a selector of the children.

Programs for Day Care are typically found in four different settings:

- A. Family Home Care - The facility for this type of Day Care is a private residence. The number of children and range of program activities is determined by the size of the house, its room arrangements, its yard space or accessibility to other outdoor play space. In this type of setting, all support services to the children or their families are provided elsewhere.

- B. Day Care Center - Usually Day Care centers have been constructed for the custodial care of children. The addition of supplementary services may be exceedingly difficult if they were not included in the original plans. When located in a church Sunday school, the need to clear the room and "pack up" before the weekend limits the type of equipment and activities possible, but may make available supplemental space for additional services and parental involvement.
- C. Multipurpose Social or Public Service Agency - Location of centers within settlement houses, public schools and family service agencies can provide both administrative and supplementary services as "built-in" program components, thus simplifying the program's start-up cost and ongoing administration--providing that the sponsor's purposes coincide with those of the multi-service setting, and they are willing to relinquish administration of the service to the host agency. While other arrangements for sharing administration are possible, they rarely seem successful.
- D. Job related Day Care - The industrial Day Care center is the typical example of this system. Since staff are employed by the corporation or union, administrative control is the sponsor's and the continuation and shape of the program may be determined by considerations other than service to children and families.

The availability and costs of settings thus limit program options, and the search for optional settings may well be a first step in the program design process. Typical construction costs for a 50 child center are approximately \$150,000, and there are few sources for such funds. The determination of "where" a service can be may be necessary before sensible decisions can be made about what it will provide and whom it will serve.

FINANCING

Obviously, if a center is designed to serve parents willing and able to pay for the full cost of service, a private operator can amass the capital to initiate the service. Nine-tenths of present Day Care in America is provided by private operators. Parents get what they pay for, and the cost of "fund raising" is usually minimal.

Private, non-profit centers are in a different situation and, even if parents pay part of the fee, must find ways of raising money through gifts, grants, and service contracts. The range and quantity of service thus fluctuates with the success of the fund raisers. Such organizations can frequently attract skilled volunteers and donations of service which help keep their costs low.

Large scale, publicly supported Day Care, except in time of war, is relatively new and is generally available only to low income families. The Work Incentive Program (WIN) and programs financed under Title IVA of the Social Security Act are the most numerous federally supported programs. Both the Office of Economic Opportunity and Project Head Start

provide a considerable amount of Day Care, and the Model Cities Program and the Child Development Programs of the Appalachian Regional Commission are increasingly supporting Day Care services. Among the states, only California has an extensive system of publicly supported Day Care services; however, New York and several other states are moving vigorously to expand their Day Care systems.

The reader interested in a full compilation of Federal sources of support should obtain a copy of Federal Programs for Young Children, published by the Appalachian Regional Commission.¹

CONSTRAINTS IN SYSTEM CONSTRUCTION

Several dimensions of constraints in planning a Day Care program have already been discussed. Several other limiting considerations exist in each community:

A. Local Attitudes and Mores Relating to Child Care

Many communities and many child development professionals disapprove of group care for infants and toddlers even when local laws permit such care. However, a program designed for working mothers must be prepared for the whole age range, and initial education of the community may be necessary in order to initiate the program.

B. Local and State Laws and Regulations

Local and state authorities may well have regulated Day Care so specifically as to eliminate all but a few options. In addition to facilities requirements, they may prohibit infant care and specify staff qualifications and ratios of staff to children. Often several different kinds of regulation are provided, and several different agency requirements must be satisfied. It is usually wise to include the local licensing authority in the planning phase. While there are occasionally inappropriate or unworkable regulations on the books, most are well intended to protect children.

C. Funding Source and Route of Funds

If funds are to come from other than local sources, restrictions on these funds may eliminate some service models from consideration and may limit others. For example, a proposed public program would require that total administrative and program control reside with the parents of the children served. Such a source of support would exclude administrative relationships of the service to other agencies or job sites, and also probably would eliminate many other sources of community support. Program content in turn would be a

1 1666 Connecticut Avenue, N.W., Washington, D.C. 20235, 1970 (\$2.50 per copy).

function solely of the level of knowledge and sophistication of the parents and minimal professional input or evaluation would be provided within the program itself. These generalizations are based on observations of such programs.

Some welfare agencies provide money directly to the mother so she can purchase child care while she is enrolled in a training program. The usual inadequacy of basic welfare grants presses the mother into finding the least expensive child care solution possible, and this is usually an informal arrangement with a neighbor. Unless heavily subsidized from other sources, it seems unlikely that a formal program could be supported by low income mothers using such special allowances for Day Care.

D. Population Density

A center program located in a large housing project could reasonably expect to be utilized fully. By contrast, there are many non-urban areas in which the population is so scattered that a considerable transportation system must be devised to bring enough children to a center to justify its cost. In such situations, Family Day Care in private homes may be the most sensible solution if the service is needed. In one instance, retired people received intensive training to care for children in family situations. This seemingly successful arrangement permitted these elderly persons to augment their social security income, do meaningful work that was satisfying to them and, at the same time, to provide good care for infants and young children. In another situation, Day Care became a public school function. Arrangements were made for the younger children to ride the school bus in the morning, and for an extra bus run which returned them and older children in an after school program in the evening. However, this still eliminated the youngest children for whom the bus ride, particularly in inclement weather, was not considered safe or healthy.

E. Guild Restrictions and Demands

In some communities, whether formally or informally, Day Care has become the province of some particular professional group. In some places it is expected that the program will include -- or be directed by -- a social worker, a teacher, or a nurse. Dealing with such requirements may be necessary for program support -- and this constraint, where it exists, should be recognized and worked with initially in the planning process. Similarly, demands that local unemployed people, or neighborhood residents, or members of a particular ethnic group be employed should be recognized early and resolved. Constructive solutions to both kinds of demands have been found, and have assisted program strength.

E. Risks

Every system has its flaws and its advantages. Awareness of the implications of each choice and of the consequences of each system will reduce risk. Such awareness, however, requires sufficient open mindedness and direct concern for children if fair judgments are to be made of each alternative before settling on a course of action.

In the section which follows, these factors are recapitulated in a chart indicating the usual pattern of each major type of Day Care setting. There are exceptions to all of these combinations. The chart is presented to demonstrate how program choices often combine in practice. (See below)

ISSUES FOR RESOLUTION IN THE DESIGN OF DELIVERY SYSTEMS OF CHILD CARE

This chapter has focused on the choices which must be made to provide Day Care service at a local level, and some of the local constraints on such choices.

The extent to which such choices will actually remain available at local levels hinges, to a considerable extent, on the resolution of a variety of issues now being considered at national levels.

The large scale entry of the federal government into Day Care is new to this generation. It is being encouraged by many different motives -- the reduction of welfare rolls, the prevention of developmental deficits, the creation of jobs, the development of systems for local control and the needs of educated women. Since the decisions made at federal levels could well limit local options, it is important to indicate at least some of the issues that will need resolution at national, state and local levels. Indeed, by the time this article reaches print, some problems may have been resolved.

Among the national issues which can quickly affect local choices are these:

- (1) We have neither the staff nor facilities with which to rapidly increase our supply of Day Care services. A sudden injection of say, half a billion dollars could not only overwhelm existing resources, but encourage a sharp decline in our already questionable quality of Day Care service.
 - a. How can we produce a rational rate of growth consistent with quality?
 - b. How can federal programs be monitored and kept at high quality levels if political pressures to spend large sums are imposed on agencies?
 - c. Does the entry of federal funds pre-empt state and local licensing? Either way, who will finance the new monitoring and regulatory functions? Such functions, at the federal level have been historically severely understaffed and subject to pressure.

	Home Day Care	Single Purpose Center	Multi-Purpose Center	Industrial Center
Primary Purpose	Custodial	Varies	Usually remedial or enrichment	Convenience of workers
Program Emphasis	Safety	Varies	Developmental	Safety
Auspices	Usually selected by parents, but may be agency sponsored	Usually private, but may be public	Public and private social agencies	Industrial or training site
Primary Decision Making	Usually Day Care Mother	Owner of agency board, with or without parent participation	Agency board, with or without parent participation	Sponsoring business or institution
Number of Levels of Administration	Usually one*	Usually two*	Usually multiple* levels	Multiple levels
Grouping of Children	Small number, various ages	Usually age-graded pre-schoolers	Usually age-graded pre-schoolers	Usually age-pre-schoolers
Staffing	One Day Care Mother	Director, teacher, non-professionals	Multi-professional and non-professional	Multi-professional and non-professional
Facilities	Private home	Special structure	Church, school, settlement house, multi-service center	Special structure
Financing	Usually parent fees. Occasionally agency supported.	Parent fees, private and public funds	Parent fees, private and public funds	Private funds
Supplemental Services	Rarely provided	Rarely provided	Wide range usually provided	Varies with sponsor
Constraints and Risks	Home may be unsafe, inadequate, unhealthy. Either no supervision or at high cost. Uneven quality of care, depends entirely on mother.	High Facility Cost. Uneven attention to individual needs. Spread of infection: usually cannot provide care for sick child.	Facilities often must be shared with programs having different needs. Administration cumbersome. Funding often uncertain. Risk cross infection.	Continuity depends on employment. Children must be transported. Risk cross infection.

	Home Day Care	Single Purpose Center	Multi-Purpose Center	Industrial Center
Advantages	Low cost. Can care for sick child. Convenience to child's own home. Flexible hours.	Usually good facilities. Trained staff	Comprehensive services provided. No need to duplicate administrative, facilities, other component costs.	Mother is nearby. Hours correspond with mother. Stable Financing

* Depends on funding source. Federal and State funding always increases number of decision making levels.

COMPARATIVE COSTS OF A HOME CARE AND A CENTER BASED PROGRAM FOR 60 CHILDREN*

HOME CARE	COST	CENTER CARE	COST
12 Day Care mothers	\$65,000	Rent and utilities	\$13,000
2 supervisor/trainers	22,000	Director	12,000
Office space	1,000	Assistant Director	10,000
Clerk/bookkeeper	5,000	Half-time cook	3,000
Supplies and food	2,000	Half-time maintenance man	3,000
Telephone and postage	1,000	4 teachers	32,000
Nurse	9,000	4 aides	24,000
Travel	4,000	Secretary/bookkeeper	5,000
Fringe benefits	<u>15,000</u>	Nurse ($\frac{1}{2}$ time)	4,500
	\$123,000	Supplies and food	1,500
Cost per child	2,050	Fringe benefits	<u>14,000</u>
			\$123,000
		Cost per child	2,050

* Simulated data

- d. If either facilities or a local share are required, the poorest communities will be least able to participate.
- e. When service is provided to a working class or middle class family, it is usually reasonable to assume that the child has adequate nutritional, health, and educational inputs from the home. New services for poor children cannot be made on this assumption. How will these needed supplements be financed or provided? How can benefits to the whole family be provided? These questions become increasingly important if impoverished parents are to participate in program design. Experience teaches that severely stressed parents will want to meet their own needs first.
- f. Since the bulk of services to children are provided through state agencies, any large scale federal program that bypasses the state is not likely to receive enthusiastic assistance from them in supplying supplementary services. However, many ethnic politicians are demanding direct and total neighborhood control of new federal funds. How can a control system be erected which will permit parental choice and influence and still focus existing public resources for service to children? The advantages and limitations of various control systems have already been sketched: How can local flexibility exist within a federal funding operation? Perhaps the only solution is to provide basic support through existing public structures with provision for direct financing of parentally operated programs when public programs fail to deliver good service. If it turns out that the bulk of new service demands is for after school care, it may be simplest to assign this task to school systems, thus avoiding the whole problem of facilities, staff development, transportation and administration.
- g. What effect will federal funds have on existing state, local and philanthropic expenditures in Day Care? All such budgets are under stress, and even a small federal effort may provide an excuse for cutting or eliminating such services. Under certain circumstances federal funds could yield a net decrease in Day Care services.
- h. Parental consumers of Day Care services are presently voluntary consumers. Under new welfare laws being proposed, the new consumers will be involuntarily brought to the services. Will this not increasingly complicate the design and operation of services?
- i. Attitudes toward infant group care vary across the country, and some states prohibit group care of infants under two or three years of age. Will federal programs respect such local and legal limitations even in the welfare recipient who has an infant but seeks training and employment from the government?
- j. Is there any way to train managers and develop facilities before new mass programs begin?

- (2) At local levels, even if money and facilities can be provided, services for poor children will need to be more comprehensive than simply providing custodial care. We have more than adequate data documenting the health deficiencies, poor nutrition, and inadequate learning habits of the very poor. Given the scarcity of such services even for the rich, how realistic is it to suppose that proper care can be provided on a mass scale? By accepting a child for care, responsibility for his health and development become a charge on the caring agency.
- (3) The shortage of resources and staff are particularly acute in rural areas, where 55% of the poor in America live - but shortages are acute even in our largest cities. Balancing between needs and standards - deciding on a minimum that is better than nothing - are problems subject to experimentation. Most demonstration programs are too small or too special to solve mass service problems. Most federal programs are too rigidly structured to permit systematic variation. Perhaps half a dozen different massive efforts in half a dozen large areas are a necessary prelude to a national program.
- (4) Federal and state rules are generally devised to meet the needs of bookkeepers rather than to meet the needs of programs. Yet, child care cannot be sensibly placed in a procrustean bed - a single mold. We know too little, and children's needs are too different, to lock programs into systems which conflict with children's needs. For example, this writer visited a federally sponsored program which served no meals to children because a federal regulation prohibited serving food for staff members, and a local official ruled that the only way to ensure enforcement of the rule was to bar food altogether. Since complex bureaucracies do distort programs for non-programmatic reasons, can we devise a system to minimize the discrepancy between a program's objectives and its administrative arrangements? One proposed piece of child care legislation suggests the creation of a public corporation, such as Comsat, as a method of making possible administrative relevance to program needs.
- (5) The selection and training of staff is an obviously important issue. As important however, are the development of means to:
 - a. happily blend professional and non-professional staffs,
 - b. create atmospheres permitting effective supervision,
 - c. avoid interpersonal conflicts among staffs,
 - d. prevent politicization of publically supported programs,
 - e. reduce staff turnover to provide children with continuity of care, and,
 - f. insure that training and experience lead to credentials permitting both lateral and vertical mobility for all employees.

- (6) Finally, Day Care systems should not become junior ghettos. A system should be able to blend funds from public and private sources and be so attractive as to recruit children from every social class in the community. Children benefit from such diversity of companionship, and programs thrive when they serve a whole community's needs, and not simply those of a single class or group.

Which of these issues are met - and which are ignored - will set many of the boundaries of Day Care development during the decade of the seventies.

PART VI

CHAPTER 16

EVALUATION OF DAY CARE CENTERS: SUMMATIVE AND FORMATIVE

Francis H. Palmer, Courtney Cazden, Joseph Glick

INTRODUCTION

Everyone involved in a Day Care program feels that his efforts are benefiting children -- otherwise, he would not be involved. Some, however, feel that additional information could improve their program. Hopefully, this chapter will provide those seeking such information:

- ideas on how one may evaluate more precisely the changes occurring in the children being served, and
- ways of gathering evidence on the overall effectiveness of one's program for use in cross analyses of other programs.

Such information may be useful to programmers who must convince a board of directors, a supporting agency, or even themselves, that their program is accomplishing its goal and/or that it is as good or better than others.

Such evidence, in fact, may be crucial to the continuation of a program. The child who comes to Day Care is the target of many expectations -- those of his parents, those of the Day Care staff, and those of the community and the society at large. However much these expectations may differ, they share in common the hope and belief that Day Care will be a rewarding and enriching experience for the child. The question naturally arises: How do we know that Day Care is benefiting the child, that it is meeting the expectations for which it was designed? There is also the broader question of how the program may be improved. To answer these questions, we must rely on the process of evaluation.

For many, evaluation is a threatening concept. The attitude that evaluation is a fault finding and investigative activity is all too common. The threat, of course, is very real to persons who feel that someone else has the power to curtail, change or stop a program which they feel is important. Teachers, program directors, and members of sponsoring agencies often feel distaste and distrust toward the idea of evaluation.

In part, these attitudes are due to the nature of many evaluative efforts. Too often they are requests from outsiders for help in answering questions which the outsiders want answered and they have no apparent benefit to the people at the local level. Although these negative attitudes may be understandable, they lead to very unfortunate consequences.

Evaluation is an essential part of human activity. It is involved in the mental processes used in solving problems, the laboratory work of scientists testing hypotheses, the decisions of a group running any organization to include Day Care programs, etc. Actually, evaluation is very common to almost everyone's life. A casual look around a Day Care center

to see if teachers are occupied and children are involved in what they are doing is really a form of evaluation. Thus, the question is not whether one will or will not evaluate but whether the evaluation is to be systematically planned so the results may be of benefit to all concerned.

People must have an image of what they want in order to make good plans. Whether short or long-range, individual or group, successful plans have three characteristics. First, the plans must be stated very specifically, so there will be no confusion about the goals to be accomplished. Second, those involved must look carefully and honestly at what they are doing to determine if their efforts are consistent with meeting their goals. Third, ways must be developed to feed back the results of any inquiry so plans and programs may be modified, and/or so that convincing evidence will be available on the value of the program.

What follows is an attempt to make some of the issues involved in the evaluation of education and child care programs more explicit in the hope that evaluation efforts will better serve all those involved and interested.

TWO TYPES OF EVALUATION

Educational programs are subjected to two very different types of evaluation -- summative and formative. Summative evaluation occurs at the end of a period of time during which the program has been operating, and is designed to provide information about whether that program satisfied the goals of the people or organization who planned it or sponsored it. It is almost always done by outsiders, people not directly concerned with local planning or operating of the program. Formative evaluation on the other hand is conducted while a program is being planned or carried out. Its goal is to provide information which will be of benefit to the future operation of the same program on which it has been conducted. It is usually done by the planners or operators themselves, with or without outside help.

In the pages which follow, we shall briefly discuss summative evaluation. The primary emphasis, however, will be on formative evaluation as it can be of help to a Day Care center. For further information about summative and formative evaluation, as these are related to teaching and instruction, the interested reader is referred to Cazden (in press) and Kamil (in press). Both of these authors discuss standardized tests and offer extensive suggestions for informal assessment.

Summative Evaluation

Every agency sponsoring a Day Care center has its own unique objectives and local purpose. In addition, there are national purposes -- goals for children, parents and communities -- which prompted Congress to appropriate money for early childhood education. Congress is entitled to know whether it's purposes are being fulfilled and so people working with children at the local level will be asked to cooperate with national summative evaluation on projects.

Summative evaluations are usually initiated by the agency that funds the program. Those so involved ask the question: Are we getting for our

money what Congress intended? Usually they want to know how many children are involved in the program they support, who those children are and more specifically, the kinds of changes that occur in the individual child, the family and the community as a result of the program. If the program was designed to better prepare pre-school children for performing in the public schools, as was Head Start, the major inquiry will be whether those who participated did in fact do better than those who did not attend.

Summative evaluation of a nationwide program should be comparative across the populations, regions and program variations which were involved, whether the program's purpose was reading readiness, career ladders for paraprofessionals, or some other goal. Any particular national program depends so much upon the personnel at the local level, community acceptance, and other factors that judgments about its nationwide effectiveness must be based on comparative data which are representative of the diversities within the overall program. Judgments cannot be limited, for example, to observations made on a few local programs, or to local programs in one region of the country, or to those implemented by one particular group in the population. Thus, Head Start could not be evaluated as to whether it fulfilled the purpose intended by Congress by assessing only those programs conducted by outsiders, or by singling out only those in New Mexico, or only those in Harlem and other communities where Black facilities were involved.

When a Day Care center is evaluated in a summative fashion, the information probably will be used only in combination with results from other Day Care centers before a judgment is made about the effectiveness of the program as a whole. Decisions about the effectiveness of national programs do not depend solely upon what happened in one local program but rather upon what happened in all local programs across the nation, regardless of the circumstances under which they were operating. The final decision, therefore, does not necessarily reflect either the effectiveness or ineffectiveness of one local program.

The greatest amount of controversy about summative evaluation usually centers around two questions: Who shall do the evaluation? And, what measures shall be used to determine whether or not the program was effective?

As was noted above, summative evaluation is usually done by people who are not a regular part of the program, either at the local or national level. Because everyone involved in a national program -- from the Director in Washington to the teacher at the local level -- is committed to its worth in one way or another, it is assumed that a more objective evaluation can be made by someone unrelated to the program. Using this criterion for selection provides greater assurance that the evaluator will see more than one side of the picture, and will attempt to provide an unbiased judgment of what the program has accomplished when all aspects of its progress are considered. On the other hand, the outside evaluator probably will not know the program in detail at the national or local level; consequently, he may make judgments about its worth based on parts of the program which those involved in the program will not consider fair or accurate. He can be unbiased, but he cannot be as informed about some aspects of a particular program as those working in it. Since few people take pleasure in evaluating a program without knowing its contents and procedures in great detail, just as few people like being evaluated by someone who does not know the contents and procedures (not to mention the problem) at the local level,

the choice of who will do the evaluating inevitably results in controversy and distress on both sides. If those selected are not both well trained in evaluation as a procedure and highly sensitive to the many factors which can make evaluation meaningless, the money spent easily can be wasted.

One of the most common problems associated with training and sensitivity has to do with the measures which will be used in the evaluation. The selection of the measures from which results will come and decisions will be made is critically important. The goal is to select measuring instruments which can reflect the relative success or failure of a program in relation to the objective(s) for which it was designed. Ideally, those measures would satisfy both the sponsor of the summative evaluation and the people whose programs are being evaluated; however, such satisfaction seldom occurs. Frequently, the evaluator is measuring an aspect of a program which is not thought to be important by the people conducting the program. What the evaluator wants to know and what the operators think he should be finding out are often quite different. For example, the Westinghouse study of Head Start effectiveness used measures of cognitive change and came to the conclusion that there was no demonstrable, durable effect on the intellectual performance of the children involved. Many people accepted those results as testimony that Head Start had no beneficial effects on children and consequently did not satisfy the intent of Congress. Other people, notably the parents of the children concerned, would not accept cognitive measures as valid data for rejecting the program. The majority were convinced that Head Start did benefit their children in a variety of ways, including their social, emotional and physical growth. As one group in Harlem put it: How come those Westinghouse researchers say Day Care is no good for our children when they continue to send their own to child care centers, the content and personnel of which are almost indistinguishable from most programs in Head Start?

Standardized measures such as the IQ are indispensable parts of summative evaluations at the national level. They may well become the only means by which particular communities in the United States will be able to ultimately compare the results of programs designed to benefit their children with the results obtained from programs in other communities. There are, however, some important precautions which should accompany the use of such measures.

For example, standardized measures frequently are chosen more for their familiarity to professional evaluators and semi-professional consumers of the evaluation, than for their validity or reliability in assessing dimensions of behavior which are crucial to the intent and worth of a program. This, in part, explains the frequency with which IQ scores are used in summative evaluation. Because there has been a great deal of research on the IQ, evaluators can communicate nuances of change as the result of a program to other evaluators in terms of the IQ. This means simply that there are standardized norms for many regions and populations in the country, and that comparisons can be made easily. Furthermore, IQ scores are in the public domain. They are accepted measures of childrens' behavior whether or not they convey, in any given instance, what people think they communicate. They are a matter which mothers can discuss with fathers and bureaucrats can talk about to Congressmen. Yet, many of the IQ scores are excellent measures -- when they are used in the right context and when they are administered properly. The real problem is, that like many other standardi-

zed measures, they may be selected for use in an evaluation just because they are "good" measures. No consideration is given to whether or not they will measure what should or could be measured in that particular instance. The importance of selecting standardized measures for summative evaluation which will accurately assess the true goals of a program -- as agreed upon by the evaluating agency and the people whom the program is supposed to serve -- cannot be overestimated.

No matter how carefully a measure may be selected to reflect the intent and worth of a program, there are two problems which must be considered. One is the distinction between performance and capability; the other is the distinction between process and achievement.

The distinction between a child's performance of a particular act and his capability for performing that act under ideal conditions may have profound consequences for assessment of and attempts to improve programs designed to benefit the intellectual performance of children (Glick, 1968). That distinction is frequently ignored when such scores as the IQ are used in summative evaluation. Decisions are made on the basis of a child's performance at a particular point in time, and under the particular conditions existing for the assessment. The work of Zigler and others has shown that cognitive ability is not the only attribute measured by cognitive assessment. These assessment scores are probably affected by other variables such as the motivation of the child at the time he is tested (see e.g., Gruen, Ottinger and Zigler, 1970). Furthermore, most large scale testing efforts specify a time when the children are to be assessed, regardless of the extent to which they have adapted to the testing situation. It has been shown that many children, particularly those from a socioeconomic level which differs from that of the test administrators, perform much better than would be expected when they are given adequate time to adapt to the situations under which they will be examined (Palmer, 1970). No matter what tests are used, the common sense distinction between performance and capability must be considered before decisions are made about the results of any child care program. This is particularly true during the ages of 18 months to four years, for which standardized norms are usually inadequate and procedures for test administration have not been perfected.

Just as summative evaluation frequently ignores the distinction between performance and capability, so it also frequently disregards the difference between process and achievement. The distinction between behavioral achievement and the process or structure underlying that achievement was made by Heinz Werner in 1937. It may appear that the performance capability axis and the process achievement axis are similar because the words performance and achievement are frequently used interchangeably; however, the two are different in a very important way. The performance capability distinction refers to the possibility that different scores may result from children having the same capacity. The process achievement distinction refers to the possibility that the same scores may be obtained from children who are in very different stages of the developmental process (Glick, 1968). Thus, two children may obtain the same score on a test when one has just completed a stage of accelerated learning in the process of gaining insight into a problem and the other has not yet entered that period of acceleration. The second child did as well on the test even without the benefit of that insight, and had the tester waited until he had completed a similar stage of accel-

erated learning he would have performed much better than the first child. The same phenomena can occur with respect to two programs designed to benefit intellectual development. One program may have provided all of the missing conditions for allowing its children to achieve and to use all the learning experiences to which they have been exposed before testing them. Another may have provided most of those conditions, but the ingredient required to coalesce the previous experience and to bring about the acceleration in learning, may not have occurred before testing. When the latter children experience the final ingredient, within the program or after it, they may experience their spurt in learning. Testing at a given point in time may catch the former children after they have benefited from their experience, but miss this phenomenon in the latter group. If the scores are the same for both programs, and the second program's children accelerate a month later, which is the better program regardless of the similarity of scores at the time of testing?

Formative Evaluation

Formative evaluation is done by the operators of a program, either by supervisors and teachers or the local board, for the explicit purpose of determining whether the program is accomplishing what they desire and to gain information which permits them to improve the program. Formative evaluation is a private process, as compared to summative evaluation which is a public one. Inherent within the formative process are the same types of difficulties which an individual faces in the process of self evaluation in relation to some aspect of his own behavior. Similarly, in both instances, evaluation may be done with or without outside help.

Frequently outsiders can offer expertise in how to plan an evaluation, measure the particular variables associated with the goals of the program, or suggest ways of being more objective in the evaluative process. Clearly, when help from outsiders is sought by those initiating formative evaluation, the advisors must be selected with care. They not only must know the technical aspects of evaluation but also be sensitive to the goals of the program and have an understanding of the children, parents, staff, and community involved.

The most serious problem associated with formative evaluation is suggested in Polly Greenberg's book in the natural history of the community effort of the Child Development Group of Mississippi:

All CDCM communities were ashamed to admit weaknesses. They tried hard to hide them from the Central staff. They had been considered failures for too many centuries to desire further exposure. This was CDCM's single greatest problem, because until individuals and groups can bring themselves to face what is wrong, they're unable to get at the roots of it and begin replanting what they feel is right (1969, pp. 140-41).

For formative evaluation to be successful, everyone at the local and national level must believe in its value. This means obviously that we can neither afford to ignore the most serious problem for formative

evaluation -- the human tendency not to talk about what is known to be wrong simply because such an admission is thought to be an acknowledgment of lack of capability or knowledge. A second serious and frequent problem is that people who are either operating a program or directly responsible for it are so committed to what they are doing that they cannot accept the fact that anything is wrong or that change would make the program better. These are powerful obstacles to formative evaluation and decrease the potential it offers as a positive instrument for change.

There are constructive ways of dealing with these two problems. One way is to develop an open communication circuit within Day Care centers, so that all concerned can discuss their mistakes without fear of being punished or laughed at; thus, everyone will learn from those mistakes and increase the chances of continuously improving the program. Outsiders can be of help in such discussions because they can provide expertise which may be otherwise unavailable to the board of directors or staff. Further, they can sometimes identify those personnel who are not publicly admitting their mistakes because they are afraid others will judge them as being incapable or lacking in knowledge. Here again, though, an outsider must not only be technically competent to make such judgments but must understand the people in the center and their goals, and be sensitive to both. Yet, despite the best efforts, changes in attitudes toward evaluation will not be easy for some people. Few of us are willing to admit that our viewpoints are unchangeable and totally resistant to new information. The fact is, however, that most people have some viewpoints which they really are unwilling to change. Some refuse to consider new information even though they honestly think they are willing to accept evidence as it exists. Others are willing to admit the evidence before them and accept new information, but avoid the real reason for the evidence and attribute it to something else which is less threatening to them. These two human characteristics are severe obstacles to formative evaluation.

When someone rejects the validity of new information which disconfirms that to which they are committed, it is very different from what we call lying. When someone lies they know that what they are denying is really true and that they are trying to deceive others. They can also deceive themselves unconsciously by denying the reality of the information with which they are faced. One example of unconscious bias is when a supervisor, who is committed to a teacher because she is a close friend and is highly qualified for certain aspects of teaching, will completely deny to parents, the board or others involved that the teacher severely punished a child, even when confronted with facts which are incontrovertible. The supervisor is not really trying to deceive anyone, but simply cannot believe what the evidence says. This subtle characteristic of human beings is usually unconscious; however, it is a severe obstacle to formative evaluation, because it distorts judgments in many situations and keeps people from openly discussing their mistakes.

On the other hand, some people, as noted, will acknowledge that the information available confirms that something is wrong but attribute the blame to a reason other than the real cause. Thus, a school teacher may admit that a child is not learning arithmetic but insist that the reason is because the child misses so many days of school when, in fact, the child is present often enough to learn arithmetic if he were well

taught. The teacher can be offering an excuse which she knows is not valid; however, more often she really believes that she is teaching well, despite facts to the contrary.

The alternatives to committed thinking is uncommitted thinking. The subtle disclaimers of evidence described above are much less likely to occur with individuals who may maintain a pet idea or hypothesis, but yet are open to new information. The uncommitted thinker is willing to give up his idea or hypothesis of doing something in the face of disconfirming evidence. He realizes that his ideas are best guesses, based upon the information available, and will change those ideas when new information shows that he is wrong. Thus a teacher who is willing to accept new information will develop new techniques for controlling a child which do not involve punishment when given sufficient evidence that punishment is an ineffective means of teaching a three year old. It is this willingness to change one's ideas or hypotheses in light of new information which is a first step in formulative evaluation.

Steps in Formulative Evaluation

From what we have said, thus far, it is apparent that the first step in effective formative evaluation is simply that all concerned believe it to be a process by which any program can be improved. Those involved must be open to evaluation and also aware of those subtleties within themselves and others which often distort and block the perception of facts.

The second step is to state very specifically the goals of a program. If the real reason for setting up a Day Care center is to provide a safe place for children while parents work and play, evaluation is simple. One needs only to determine whether the Day Care center really takes care of children's simplest needs for rest, nutrition, and safety. Most communities starting a Day Care center, however, will have additional goals beyond the relatively simple requirements listed above. Parents will want their children to be in an environment where they benefit socially and intellectually while they are safe and secure. This is where the setting of goals becomes more difficult, and more important. For a more detailed example of establishing goals and ways of specifying them, the interested reader is referred to Palmer (1971).

Communities have to make some difficult choices when they start a Day Care center. The setting of goals and objectives may be simple. The decisions regarding goals will affect the children concerned as well as the community. The goal of one group, for example, may be to provide experiences for the children which will make them perform more effectively in the public schools so they can continue in their education to the highest level of their ability. Another group may choose to train their children to work for a better society than the one most people agree is imperfect so they will be able to achieve greater opportunity and justice for everyone. Both are legitimate goals, and the chances are that within a given community there are parents who feel strongly about both. Many parents believe that the established educational system is to some extent designed to perpetuate certain injustices and inequities and may wish to reject the idea of preparation for school in favor of training their children to work for a better society. Stung by the lack of opportunity

and repeated failure which they have experienced themselves, they may feel it wrong to train their children to participate in the same social system just as they were forced to do. This dilemma will cause controversy in many communities as goals are set for a Day Care center.

The most predictable compromise in communities whose members value the second goal is that they also want to accomplish the other goal. At this point, it is feasible for communities to consider what we know about the development of young children and what is it that we are prepared to do.

The chapters of this book indicate that researchers have learned something about cognitive, social, emotional, and physical growth. Yet, we must be honest and admit that what we know about social and emotional growth is almost entirely restricted to the society in which we live. Regardless of the legitimacy of the goal of training children to become resolute defenders of social justice, we know less about the experiences required to achieve that goal than we do about the prerequisites of intellectual growth and presumably how to make children perform better in school. Furthermore, it is difficult to conceive of any society within which bright children who can read, write and manipulate quantities better than others will not have greater opportunities. They must learn to get along with other people before they can interact effectively in a society in order to change it; however, to get along with others one must have the skills related to communication and reasoning. Thus, without denying the importance of training children to work for desirable social change, it can be argued that any child must develop the communication and reasoning skills to be effective, whatever his goals. If he does not develop those skills, he is more likely to be subjected to the same failure and lack of opportunity which many parents have experienced.

We know how to do many things associated with the developing child which can help him no matter what he decides to become. We can provide him with more extensive experience about the world in which he must live. We can expose him to specific experiences designed to make it easier for him to learn the skills of reading, writing and arithmetic. We can reward him for expressing that wonderful human capacity for joy which children possess so abundantly. We can teach him to respect others when they deserve this respect, and to recognize the characteristics of people who have different values and ways of living. Ultimately, we can teach him how to use self evaluation as a tool for changing himself so that he can adapt better to the circumstances of the life he has chosen. While every community must decide for itself the goals of its Day Care center, it should consider seriously those goals related to teaching the child those communication and reasoning skills, about which child development has something to say.

Goals may only become explicit as actual work with children proceeds. This is more apt to be the case when non-professionals are planning for the first time. At least Polly Greenberg found this to be the case in the beginning months of the Child Development Group in Mississippi:

Luckily, Lou had far more experience than I had in the working ways of rural Negro Mississippians. He had focused people's attention on the fact that it would be them, not 'they', who would need to plan for the children. But he didn't force plan making prematurely,

or make their plans for them because they were slow doing it. He knew what I did not know until the second day of center operation in this community, when I dropped in for a few minutes. That many people in these communities don't think abstractly. They think as the need arises (1969, p. 97).

So it may be that goals are global in the beginning. The community may decide that it wants to better prepare its children for school. They may start talking about teaching the ABC's or discipline and only gradually move to the more complex objectives discussed in the previous chapters of this book.

The third step in formative evaluation is to plan or design the evaluation procedure. Once the goals of a program have been made explicit, one must ask how to determine whether those goals are being achieved. In planning formative evaluation, the distinctions previously made in summative evaluation about children's learning are equally important. The design must distinguish not only between a child's performance and his capability, but also between process and achievement. Throughout the process, those involved must remember to guard against over commitment to their own way of running the program that might prevent them from recognizing or admitting mistakes.

An evaluation plan or design is a particular way and order for obtaining information relevant to program goals and concerns. Any assessment of the results of a Day Care program and its efforts to educate children always encompasses a considerable span of time. Therefore, the plan should take into account that education is, in fact, a process, and that results with children may not be obvious for some time after the program has begun.

Another important consideration is that children mature and learn whether or not they attend a Day Care center. Thus, an evaluation of the effectiveness of Day Care must determine whether the children learned more from attending than they would have learned had they not attended. Behavior changes dramatically during the pre-school years, and it is difficult to determine those factors that bring about the changes. Too frequently, those working with pre-school children tend to attribute changes they observe in children to the methods they are using in teaching and in interacting and to forget that the children would be learning even without their intervention.

An evaluation plan can best contrast what children would learn without the planned intervention by using a control group. Ideally, a control group would consist of children who were not participating in the program but who were as similar as possible to those attending the center. A comparison between the performance of those who did and did not attend would provide a good indication of what the center program was accomplishing. However, while a control group is the best way to make such comparisons it is frequently not feasible for two reasons: 1) children who are like those already participating and who have need for Day Care cannot be excluded simply for purposes of evaluation; and 2) the methodological problems involved in obtaining a control group which is like the participating groups in all important respects are enormous. Thus, while the control group is highly desirable for evaluating a program it will seldom be selected by groups

beginning formative evaluation. Fortunately, there are other ways of gaining information.

One way is to divide the children in a program into two groups. Then, a new idea or way of doing something can be tried with one group and not the other, and the results of the two approaches can be compared to determine which group learned or performed better. However, two provisions are necessary for this within program control plan to be an effective evaluative technique.

First, the children in the two groups must be as much alike as possible in characteristics which might influence the results. Obviously, for example, one would not try a new learning technique using only the brightest children in the program and then compare the results obtained with data collected from children who are less bright. The brighter children would be expected to learn more, with or without the new idea. That they did learn more would not be evidence confirming the hypothesis that the new idea is better than the old way of doing something. An adequate comparison would be made only if the two groups were equated for brightness and other characteristics which might influence the results.

Second, even if the two groups are as much alike as possible, it is necessary to determine with certainty that it is really the idea which is different in one group rather than other things which may effect the results but are unrelated to the idea. Frequently, a Day Care center staff who is enthusiastic about a new idea will work harder for it simply because they are convinced it is better. When this occurs, they are not evaluating just the new idea but the effects of harder work and enthusiasm as well. The new idea if adopted will someday become an old idea, and if the hard work and enthusiasm diminish in time, and were the reasons the idea was effective, the better performance which was found in the children will diminish too. For within program control to be effective in formative evaluation, not only must the two groups be as identical as possible, but what is done with the children also must be the same in every respect, except for the manipulation of the idea itself.

As an example of within program control let us say that a supervisor or board believes that one hour of individual instruction in learning basic concepts is as valuable or more valuable than ten hours of instruction when the children are in classes of 12. Basic concepts shall be defined as on top of, wet/dry, rough/smooth, more than/less than, same/different and other concepts which all children must learn before they proceed to learn other things more frequently associated with schooling. Half the children in the illustrative program will be assigned a one-to-one teacher interaction one hour a week during which the concepts will be taught. The other half will be taught the concepts ten hours a week in classes of twelve. To be certain that the calibre of instruction will be as alike as possible, the same teachers will spend an equal amount of time teaching both methods. At the end of a specified period of training, the two groups will be tested with a measure designed to assess their knowledge of the basic concepts taught to each group. In this example, the more effective teaching method can be identified, and changes may be made in the program for all children if the staff and board decide that the results support such changes.

This plan for evaluation involves a considerable planning effort

but can be used for any idea. Whole new programs may be assessed or a particular teaching technique may be examined. However, this method does not permit one to compare what children learn in the two conditions involved with what would be learned without any training at all. The latter comparison can be one only with a non-participating control group. Nevertheless, the within program control plan can provide a great deal of valuable information.

A second way to gain information without a non-participating control group is to use a before and after design. This plan does not account for what a child would learn if he were not attending the program; however, it can provide valuable information about whether some newly instituted arrangement or idea is working better than it did before with the old arrangement or idea.

Using the before and after design, four specific objectives are given below as examples of how evidence might be gathered and how this evidence can then be used to improve and replan the program:

#1 Goal: to interest children in books and encourage mothers to borrow books to read to their children at home.

Evidence: During free-choice periods, how many children go to the library corner and look at books by themselves? How many requests do adults get to "read to me" during a day? How many children sit without being disciplined during story time? How many books have been borrowed by mothers during the week? Which books have become special favorites, as shown by signs of extra wear? If observations are made to answer these questions in October, December and February, what, if any, trends appear during the school year?

Replanning: Is the library corner placed so that children starting to look at a book are protected from visual and auditory distractions? If adults are too busy to read to individual children, can the staff be increased by getting high school volunteers? If one adult is particularly good at keeping children's attention during story time, can he or she be freed to read or tell stories on a regular basis? Are procedures for book borrowing as simple as possible, including help in filling out cards for adults who need it?

#2 Goal: to encourage children to learn from each other, particularly in a group mixed by social class, race or age.

Evidence: How much talking and working across the class or age boundaries actually occurs among the

children? When and where is such interaction most likely to happen during the day? At parent meetings, do members of one group take up more than their share of talking time? How often does a member of one group respond directly to a member of another group? Is there any evidence of change over time?

Replanning: Are there factors in the situation which tend to segregate the children? Do adults ask the children to go to the bathroom or line up by sex or age? Does one group of children arrive together by bus and thus know each other better than they know the others? Are any factors like these influencing the behavior of the parents?

#3 Goal: to encourage children to persist at activities with increasing attention and productivity

Evidence: How long does an individual child, on the average, spend with a puzzle, at the easel, or in the block corner? Is this changing over time? Are there fewer pieces of unfinished art papers left on the floor or in the waste paper basket? (Here, evidence of physical traces has to be corrected for the number of children who tried.) Are children more apt to recognize their work and want to take it home?

Replanning: Can adults become more sensitive to individual children's need for help in finding a puzzle that is neither too hard nor too easy; in using a stapler to fix a paper before frustration makes the child give up, etc. Are spaces for quiet activities protected from interference from noisier ones? Are rules firmly enforced about not bothering another child's work?

#4 Goal: to encourage parents to visit, participate, and attend meetings

Evidence: Do mothers stop to talk when they come to leave or to collect their children? If a log book is kept of visitors, has the number of mothers increased? What about fathers? What is happening with attendance at meetings.

Replanning: Are teachers too busy cleaning up to be available to parents at the end of the day? Can one adult be freed and stationed at the door for just this purpose? Do teachers help visiting parents find satisfying ways to get involved? Are parents themselves involved in planning parent meetings?

The fourth step in formative evaluation is twofold: 1) to determine what measure should be used to derive needed information about progress toward goals; and 2) to determine under what conditions and at what times during the course of the program those measures can be used most effectively.

The selection of measures for formative evaluation includes many of the elements discussed in selecting measures for summative evaluation. The measures should be relevant to the goal and not selected just because they are available or convenient to administer. They should be applied by individuals whose background is similar to that of the children being assessed and only after the children have had ample opportunity to adapt to the setting within which assessment will be done, and to the people who will do the testing. The distinctions between performance and capability and process and achievement, should be considered before selecting a situation and time for testing.

Standardized measures can be used in formative evaluation as instruments for deriving information about how children are progressing on the dimension of behavior those measures assess. Most programs will want to use some, if for no other reason than to determine how the individual children concerned are progressing with respect to other children as well as themselves. Experts can be useful in the selection of standardized measures for specific goals of a program, but they should understand those goals thoroughly and be sensitive to the children involved.

More frequently measures must be newly devised in order to give information about goals. If, for example, one goal of a program is to interest children in books and their mothers in borrowing books to read to their child at home, no standardized measure will satisfy that need. If it is thought that one measure of interest in books may be the frequency with which children ask to be read to, it is a simple task to contrive a relevant measure. For example, on some regular basis, such as every other Monday, teachers could be provided with a list of all the children and be asked to check each time one asks to be read to. If such information were available over a period of several months, it could be determined whether the frequency of that request was increasing. Should an increase be noted, the conclusion might be that the program was meeting that goal. If not, modifications could be made in that aspect of the program designed to increase children's interest in books. Also, a new idea might be evaluated by using the within center control plan to see if the new idea increased the frequency of the event or behavior in question more so than the old method. Usually, all such evaluative attempts will provide more valid data if they do not disrupt the natural "activity of the classroom." For those interested in learning more about the development of what are called unobtrusive measures, see Webb, Campbell, Schwartz and Secrest (1966).

Collecting information on a regular basis provides information for another important aspect of Day Care -- that is, individual and group differences. For example, one particular method for interesting children in books may not be successful with all children even though it is successful with some. The regular check by teachers not only would provide information about the success of the program as related to all children, but also would yield valuable information to identify those individual children who were becoming more interested in books and those who were not.

Having identified those who are not responding to a particular approach, it is then possible to try another method which may be more successful.

The conditions under which measures are used are important determinants of the kinds of information that can be derived. For example, if one goal of the program is to increase the interaction between children, a choice must be made concerning the activities during which that behavior might be measured best. Teacher checks on a regular basis can be used for that problem as well as for the previously mentioned purpose of measuring interest in books. However, observations related to interactions between children are best made at times when the children are involved in activities where interaction is natural. Obviously, group recreation time would provide a better condition for information gathering on the frequency of social interaction than would nap time. Being alert to opportunities for those situations and times when the behavior most naturally or most frequently occurs, is an important aspect of formative evaluation.

The fifth step in formative evaluation involves effective feedback. The most critical and existing element of formative evaluation is the fact that meaningful information about the program has been gathered in a systematic manner which will be fed back into the program, thus improving its quality and effectiveness. Formative evaluation, then, is a positive feedback system which includes the following ordered and sequential steps:

- 1) formative evaluation is assumed to be a good method of improving a program;
- 2) program goals are clearly defined;
- 3) an evaluation design is planned;
- 4) evaluation measures are selected and the timing conditions for the use of the measures are established; and,
- 5) results of the evaluation are fed back into the program and change is implemented to improve the quality and effectiveness of the program.

To be effective, formative evaluation must be a continuous process. As new ideas, based on the evaluation, are fed into the program the evaluation process must begin anew to assess their effectiveness.

Finally, regular information derived from formative evaluation can make the experience of summative evaluation less stressful, especially for those involved in a local program. Those who must systematically evaluate their own program will come to understand more about evaluation and about its relationship to the need for information concerning the achievement of national program goals. Further, they will have valuable information about the progress of children which may be of use to the summative evaluator. Perhaps, someday, someone may even design a summative evaluation which will determine the effort and creativeness which programmers have put into implementing formative evaluation. Such an accomplishment would ultimately be one of the most valid measures of any center's achievement.¹

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Evaluation has been considered in many of the chapters in this volume, particularly as a function of research. A detailed description of evaluation of behavioral outcomes appears in Chapter 7, Section III (pages 213-15) by Jacob Gewirtz.

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